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Generating more business

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Taking the STEP

Superintendents explain reasons for changing jobs

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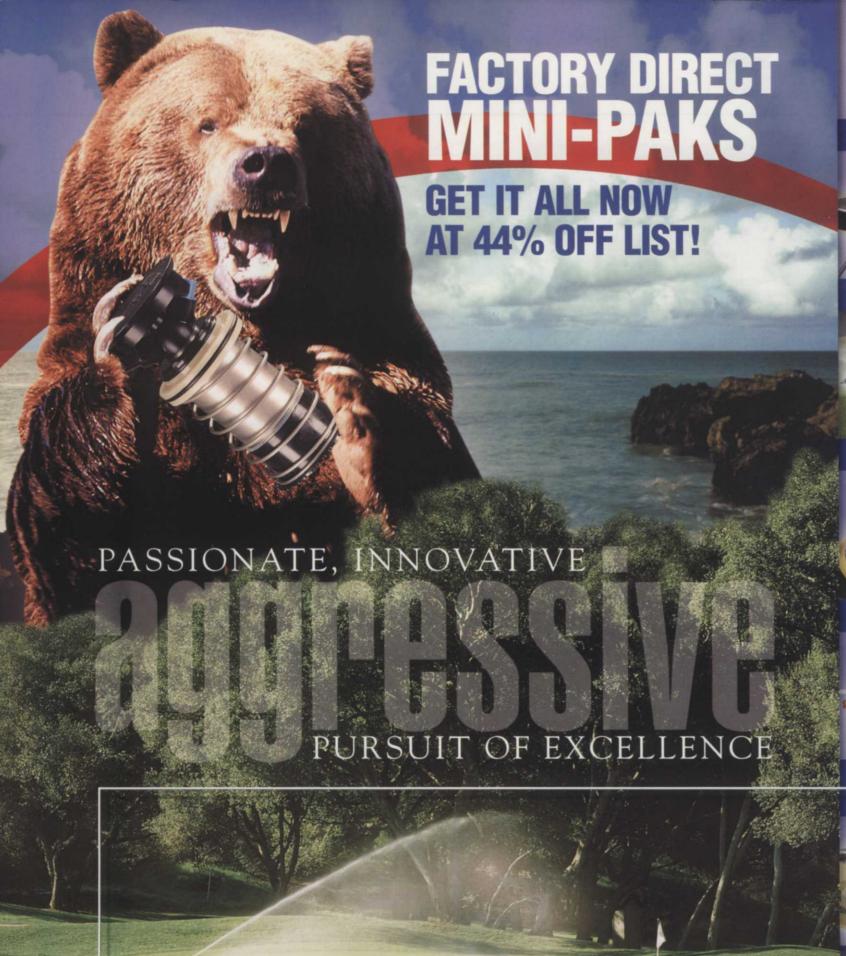
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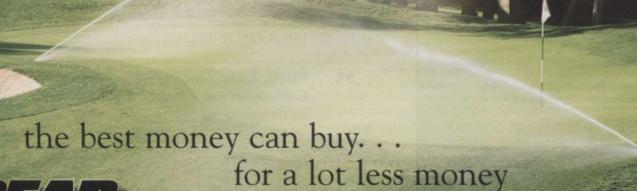




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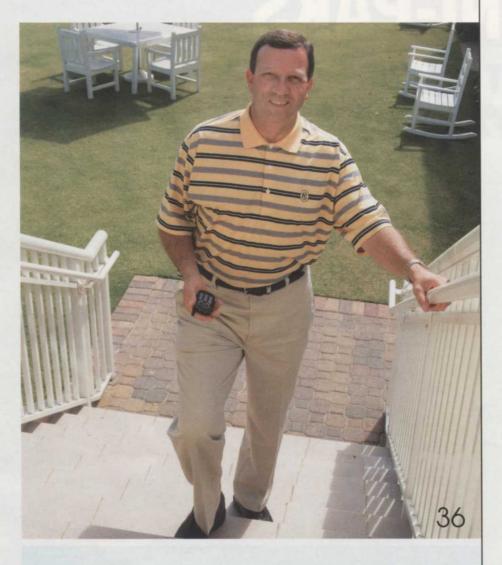
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Career management: feature

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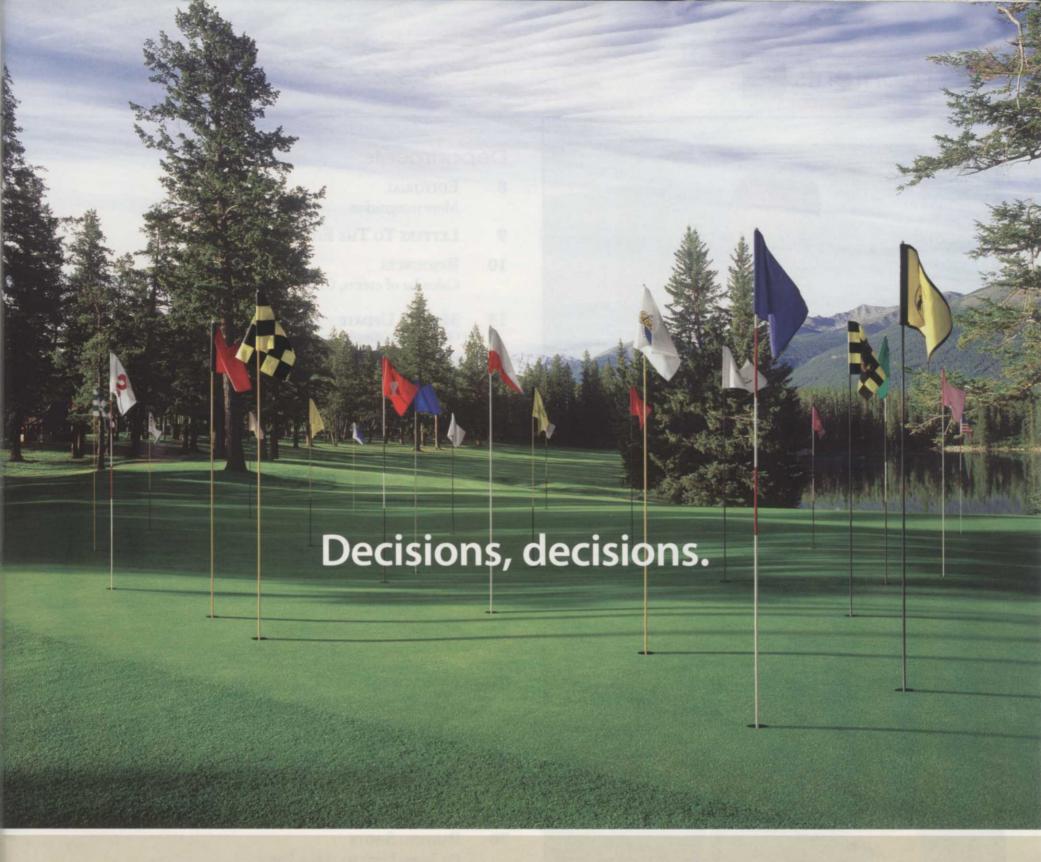
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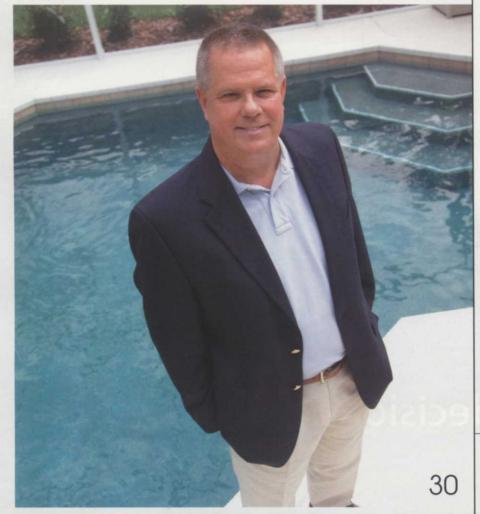


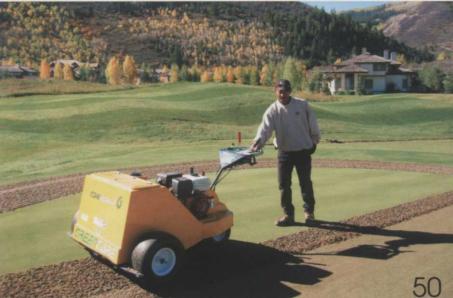
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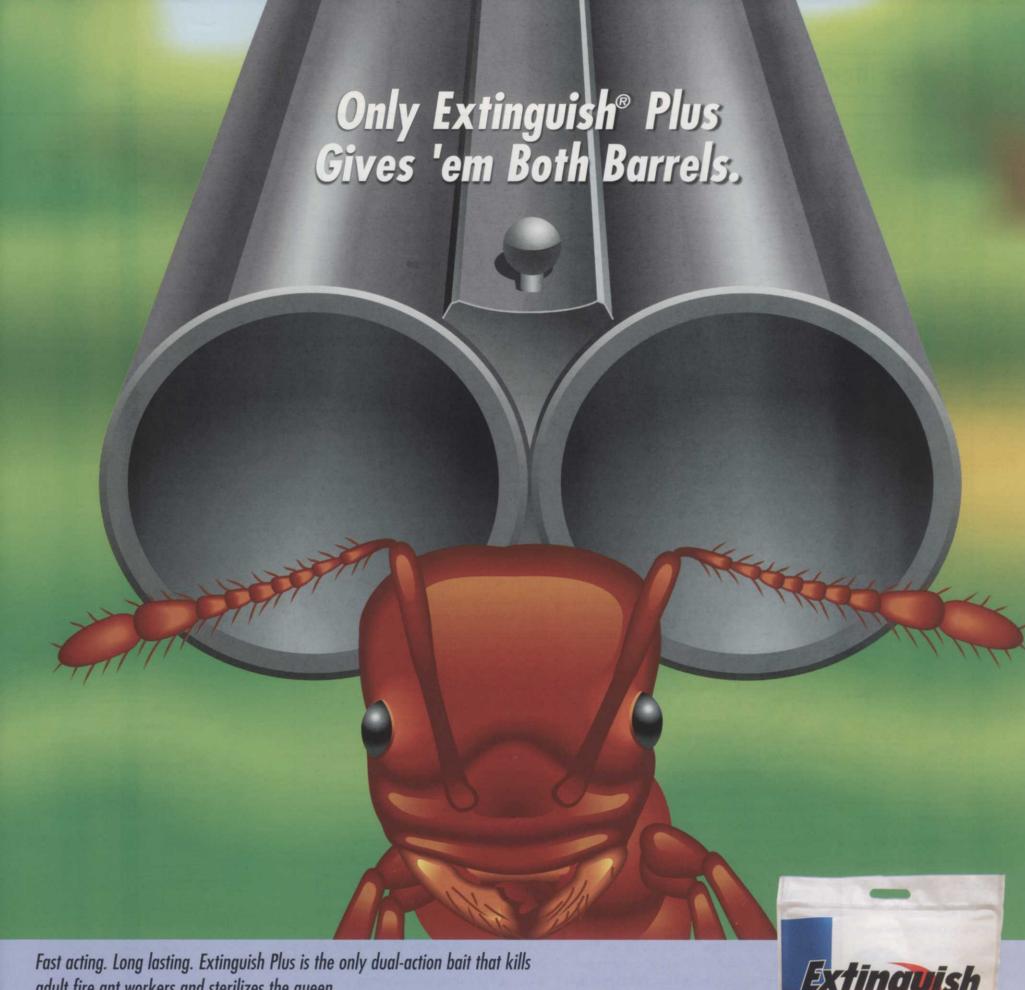


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We would like to hear from you. Please post any comments you have about this column on our message board, which is at www.golfcoursenews.

com/forums.

More recognition

s the golf course superintendent profession taken for granted? The major TV networks seem to think so. After attending the practice rounds of The Masters and watching most of the tournament on the tube, it's clear superintendents don't get the recognition they deserve. It seems superintendents only get recognition when bad weather adversely affects a course. The business side of the industry - owners, builders, architects and general managers - knows and respects superintendents, but that knowledge and respect needs to extend to the public.

Superintendents should be recognized for the work they do - and not just in trade magazines, daily newspapers and local media, where most of that occurs. They deserve to be recognized on national TV when major golf tournaments are broadcast because, in golf, the playing surface is more integral to the game than any other major sport. The golf course is the challenge to the player, not the opposing players, as in other sports. Superintendents are an important part of the game because they're responsible for the conditions of the courses, which receive attention on TV.

When the Masters, the U.S. Open and the PGA Championship are televised, millions of people see the beauty of Augusta, Pinehurst and Baltusrol. Fans see these courses on TV and take those higher expectations of course conditioning back to their courses. That's good and bad. It's good because it raises expectations, but bad because they can misinterpret expectations beyond what's reasonable. The missing link between the good and bad is knowing the cost and time it takes to get courses like that in shape for a tournament.

There are many viewers who are more interested in Tiger's caddy racing cars in his spare time than how a course is prepared for a major, but I'm also sure there are many golf fans who wonder how these courses become so picture perfect. I walked among dozens of spectators at Augusta National who commented about how wonderful the course looked and asked questions about how the "greenskeepers" were able to get the course to look the way it did.

Wouldn't it be nice if NBC did a piece about Paul Jett and his staff and how they changed and prepped the course for the U.S. Open? And just because Pinehurst is hosting the U.S. Open, that doesn't mean a story about superintendents has to focus

solely on Jett. The story could focus on any number of superintendents and aspects of golf course maintenance.

I called NBC and talked to the assistant of the producer of the U.S. Open and asked her if they planned on airing any bit about superintendents or course maintenance. She didn't know and said she would get back to me. I haven't heard from her yet.

Major networks and some viewers might consider these types of stories boring, and the networks might have a hard time finding advertising support. But there doesn't need to be an hour-long program about this - just a five to 10 minute piece would suffice.

Granted, the GCSAA has made considerable efforts with various television networks pitching story ideas about the work of their members. And the Golf Channel has produced some shows about this in recent years. There also have been some major championship preview shows that highlight course preparation. Apparently, the recognition superintendents receive has improved during the past 10 years, but it could improve even more.

Yet some superintendents are fine with the coverage they receive. Jim Nicol, CGCS, at Hazeltine National Golf Club in Chaska, Minn., hosted the PGA Championship in 2002. He thinks course maintenance is of little importance in the scope of broadcasting a golf tournament nationally and that superintendents get plenty of coverage from local media.

"There are a lot of people involved with a golf tournament who don't get singled out," he says. "We do well just being mentioned (in the national media), and I don't think superintendents should ask for anything more.'

I disagree. But if short TV pieces about superintendents were aired during a major, Nicol says one thing needs to come across: golf course maintenance is all about money. Another subject matter could be the fallacies of pesticide use on golf courses.

Superintendents deserve more time in the spotlight, and major networks should take part in that. However, that might mean the industry has to spend more time and money to produce these TV bits to present to the networks. GCN

John Walsh

COURSE NEV

Vol. 17 No. 4 Editorial Offices: GIE Media, Inc. 4012 Bridge Ave. Cleveland, OH 44113 Phone: (216) 961-4130 Fax: (216) 961-0364

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Golf Course News is published eight times per year by GIE Media, Inc., which also publishes: Lawn & Landscape, Commercial Dealer, Interior Business, Snow Business, Pest Control Technology and Recycling Today magazines. GIE Media is a leader in custom publishing, book publishing, database marketing, conferences and special events.



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Golf Course News is a member of: Golf Course Superintendents Association of America Charter Member National Golf Foundation Golf Course Builders Association of America The Irrigation Association Responsible Industry for a Sound Environment

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More research

After reading Kevin Ross' article about building up a bentgrass seedbank ("Analyzing a nemesis," March issue, page 40), I wondered if there's any ongoing or prior research that supports the practice, or is it based on theory? While Dr. Joe Duich was quoted, and an interseeding study by Dr. Karl Danneberger was cited, Ross didn't cite any research studies related to building up seedbanks.

Is there such research? I would like to see some before spending a few thousand dollars per year on seed. It sounds like an interesting theory, and I appreciate the article bringing it to my attention.

RALPH J. KEPPLE, CGCS East Lake Golf Club Atlanta

Ross' response:

In this case, I'm not aware of any university research to support my practice of building a seedbank. This management practice is something I have experimented with for years. It started from the practice of dormant seeding, which I have been using for about 25 years. Dormant seeding has been a successful part of my management programs. Other superintendents who have adopted my dormant-seeding programs also have reported excellent results.

After seeing the results of dormant seeding, I decided to experiment with building a bentgrass seedbank in the soil/root zone. Also, knowing how weed seeds could survive in the soil for many years, I wondered if bentgrass would do the same. I consulted with Dr. Joe Duich, and he informed me bentgrass could survive 10 to 15 years in the soil. After hearing that, I was convinced this would help. I then began seeding each time we topdressed throughout the year. Observing the greens closely, we began to notice some bentgrass germination in our ballmarks. This convinced me that if a void occurred, bentgrass seed already in place would have a chance.

Most golf courses have a couple of socalled problem greens, (shade, traffic, etc). This is a great place to experiment with this program. Then you can evaluate it and make your own determination. This is what I recommend to everyone.

Pride in one's job

I enjoyed John Walsh's editorial, "Targeting workers," in the February issue (page 8). I work on a municipal course in Connecticut. I'm just a regular employee with no degrees in turfgrass management. It's a

job I look forward to going to every day, except sometimes during the winter.

I take immense pride in my job, and that's reflected by the comments I hear from golfers. It's a tough job, and there's much more to it than just mowing the grass.

CHUCK BUTTERLY Greenkeeper Crestbrook Park Golf Course Watertown, Conn.

A pat on the back

I just wanted to drop Pat Jones a line and wish him luck in his new venture. It's nice to see that he will be writing in Golf Course News. He has given a breath of fresh air to an otherwise stale golf course world of articles. I have enjoyed reading him throughout the past few years and look forward to his monthly tidbit in this new venue. I thank Pat for making people think a little differently.

MICHAEL D. PAINTER Golf course superintendent Chesapeake Hills Golf Club Lusby, Md.

I was shocked when I first learned (at the Golf Industry Show) that Pat Jones was no longer with Golfdom. I was hoping that he moved on into something really great. After reading his column, "First things first," in the February issue (page 70), it became obvious to me he has the best of both worlds. I couldn't be happier for him and his "management team." I appreciate his creativity, insight and guidance.

SCOTT D. AUSTIN, CGCS Midland Hills County Club St. Paul, Minn.

Clarification

In Pat Jones' column, "Beer and scribbles," (March issue, page 70), he said the vast majority of the people working the Golf Industry Show wearing GIS Staff badges were temporaries hired from around the Orlando area. The Golf Course Superintendents Association of America refutes this and says it hired only one temporary person to staff the show that wore a staff badge. The only other support people were security (who wear uniforms), various facility staff (who wear uniforms) and various food vendors (who wear uniforms). The GCSAA emphasizes it just doesn't bring in people off the street to service attendees and vendors. It puts significant pride and emphasis on customer service. GCN

Readers with comments are invited to write to:

GCN Letters to the Editor 4012 Bridge Ave. Cleveland, OH 44113. Letters can also be faxed to 216-961-0364 or e-mailed to jwalsh@gie.net. Letters might be edited for space or clarity.

Calendar of events

June 14

Cactus and Pine GCSA Seminar on fire, bark beetles and Forest Service

Oak Creek Country Club Sedona, Ariz. Call 928-284-1660 or visit www.cactusandpine.com.

West Texas GCSA Superintendent Leadership Series program

LakeRidge Country Club Lubbock, Texas Call 800-687-8447 or visit www.wtgcsa.org.

Aug. 1

Western Washington GCSA Fifth Annual Equipment Field Day

Glendale Country Club Bellevue, Wash. Call 360-705-3049 or visit www.wwgcsa.org.

Aug. 9

Western Washington GCSA OSU/WSU Turf Field Day

Corvallis, Ore. Call 360-705-3049 or visit www.wwgcsa.org.

Aug. 10-14

Golf Course Builders Association of America's Summer Meeting

Hyatt Regency Hotel Jersev City, N.J. Call 402-476-4444 or visit www.gcbaa.org.

Aug. 29-30

RISE 2005 Turf Grass Conference

Hyatt Regency Hotel Crystal City, Va. Call 202-872-3983 or visit www.pestfacts.org.

Oct. 14-16

International Lawn, Garden & Power Equipment Expo

Kentucky Exposition Center Louisville, Ky. Call 800-558-8767 or visit www.expo.mow.org.

Oct. 19-20

Turfgrass, Landscape and Equipment Expo

Fairplex Pomona, Calif. Call 800-500-7282 or visit www.turfcouncil.org.

CDs, DVDs, Web sites

Tee-2-Green is offering free copies of its new 2005 Bentgrass Information Resource CD to all GCSAA student chapter members and university professors. The CD contains bentgrass maintenance tips from Dr. Joe Duich, advice from golf course professionals who share their management techniques, roundtable discussions with industry experts and technical information on Tee-2-Green bentgrasses. Turf students and professors can request copies of the CD by sending an e-mail to bentinfo@tee-2-green.com or by calling 800-547-0255.

The Champion Group, a Phoenixbased golf course consulting firm, released a DVD, "Selling More Golf Tournaments," that

covers every aspect of the process. The topics on the DVD include: the selling process, attitude in selling, who produces golf tournaments, why golf tournaments are produced, how to find them, how to sell them and add-on selling. For



more information, call 602-867-1491 or visit www.thechampgroup.com.

Superintendent's Video Workshop added two new titles, "Guide for Tee Renovations" and "Basics of **Understanding Irrigation Repair** and Maintenance," to its video-based training series designed for golf course superintendents and their staffs. The "Guide to Tee Renovation" covers the complete step-by-step procedure for planning and executing a successful tee

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renovation. "Basics of Understanding Irrigation Repair" explains how an irrigation system operates and shows basic repair techniques on PVC pipe, gate valves, control valves, swing joints and irrigation heads. The videos are available in VHS or DVD

formats. Each title includes employee handbooks, tests, answer keys, sign-off sheets and instructor guidelines. For more information, call 800-938-4330 or visit www.svwonline.com.

Golf course architect Jeff Mingay launched a Web site, www.mingaygolf. com, which includes an archive of articles and essays Mingay has contributed to publications throughout the world. GCN

Contact Rob Thomas, associate editor, at rthomas@gie.net or 800-456-0707 to submit resource information.





A bunker survey for GCN readers

How many bunkers are on your course?	10. How many hours a day/a week does your staff spend maintaining bunkers?
2. How many fairway bunkers are on your course?	11. Does your staff hand rake or mechanical rake bunkers – or both?
3. How many greenside bunkers are on your course?	
4. Do you have any grass bunkers? If so, how many?	12. What is the approximate annual cost of maintaining your bunkers?
5. What type of bunker sand do you use?	13. How many holes are on your course?
6. What type of bunker liner do you use?	14. Is your course public, private or semiprivate?
7. Do your bunkers have drainage? If so, what type?	15. What is your position or title? Golf course superintendent Director of grounds maintenance General manager Other
8. When was the last bunker renovation at your course?	16. May we contact you? Name: Phone:
9. Have you removed any bunkers during the past two years? If so, how many?	E-mail:

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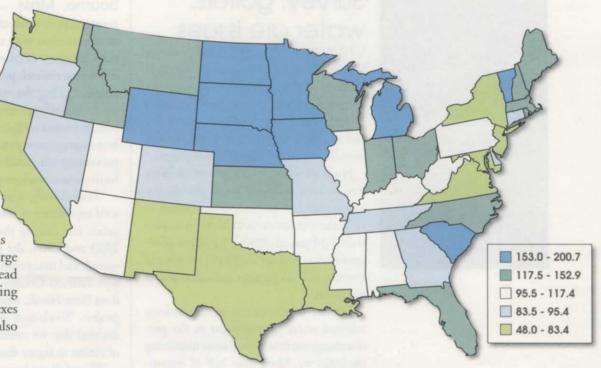
Golf course supply per capita

The map to the right shows an index of households per 18-hole equivalent. Dark blue states have above average supply given their population and vice versa. However, the data isn't intended to suggest undersupplied or oversupplied states in terms of golf course development. Many other factors, including golf participation rates and pricing levels, determine whether an area is adequately supplied with golf holes.

One might not think of North and South Dakota as having a lot of golf supply, but these states index the highest in the nation (about 200) given their population. The Dakotas don't have very many courses (about 150 18-hole equivalents combined), but they also have a smaller population.

With an index of 177 (the third highest), South Carolina has a lot of golf courses for a relatively small population. But the large number of courses in places such as Myrtle Beach and Hilton Head are supported not so much by the local populace but by golfing tourists. On the opposite end of the spectrum, California indexes low (56). Although it has a large number of golf courses, it also has a large population, particularly in big cities.

For the complete index, visit www.ngf.org.



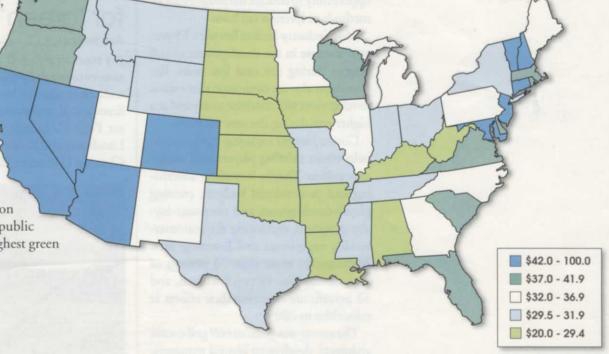
Source: 2005 Golf Industry Report from the National Golf Foundation

Public green fees by state

here are several reasons for regional variations in green fees, including the cost of land, the presence of resorts, the golf culture and what the market will bear. As evident from the map, the East and West Coasts tend to have higher green fees while the middle states skew lower. Some of the states with the highest income - New Jersey, Connecticut, Massachusetts, Hawaii, New Hampshire and California – also post the highest green fees. The south central region has low golf participation rates and lower income, as well as lower green fees. The high cost of land in some states and/or a large number of newer high-end daily-fee courses are reasons for higher green fees.

North Dakota has the lowest green fees in the nation – the median is \$20. Hawaii has the highest green fees in the nation - the median is \$100. Nevada, where almost 50 percent of public courses have been built in the past 10 years, has the second highest green fees in the nation - the median is \$89.

For the complete report, visit www.nfg.org.



Source: 2005 Golf Industry Report from the National Golf Foundation

A recent study reveals the concern about the decline of the number of golfers

Industry News

Survey: golfers, water are issues

Chicago - The 2005 Golf Industry Outlook Survey conducted by Foley & Lardner LLP reveals industry leaders are concerned about the declining number of golfers and rounds played, as well as a lack of player retention, despite a positive growth forecast of course development.

Findings show 95 percent of industry leaders are concerned about the declining number of golfers. When asked to rank the top issues most likely to impact their business in 2005, 71 percent of respondents cited the declining number of rounds, and 68 percent indicated player

Seventy-seven percent of respondents selected water management as the predominant environmental issue impacting the industry. More than half of respondents have been forced to make sizable investments in their irrigation systems, install drought-resistant grass and/or investigate reclaimed water options.

The majority of respondents are missing profit opportunities by failing to maximizing tax incentives. This year, only about one in five respondents plan to use conservation easements, and one half plan to take advantage of the depreciation of their greens and tees. These figures highlight an opportunity to educate the industry about methods to leverage tax laws.

Most industry leaders foresee a 13-percent increase in the development of golf courses during the next five years. Respondents also are optimistic that course development will continue to expand at a higher rate during the next 10 years.

Course owners are using marketing to help retain existing players and attract new golfers. They're increasing advertising and promotional budgets, creating player-development and customer-loyalty programs, enhancing the customerservice experience and lowering fees. Additionally, more than 70 percent of respondents plan to target women, and 33 percent are directing their efforts at minorities in 2005.

The survey was given to 669 golf course architects, developers, general managers, directors of golf, financiers and other industry professionals, and yielded 80 responses. Additional survey findings are available at www.foley.com/golf.

Winterkill research group formed

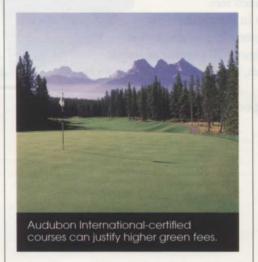
Bourne, Mass. - A group of golf course superintendents in the Northeast, in conjunction with turf specialists from the University of Massachusetts, began a multi-year research project looking at winterkill. During the study, the group will try to identify specific factors leading to winter-related turfgrass injury, determine best management practices in autumn for preventing winterkill and evaluate the effectiveness of various greens covers.

"Traditionally, winterkill is something we'd experience to some degree every few years, but during the winters of 2001, 2003 and 2004, the problem was widespread, and many courses got hammered," says Tedesco Country Club superintendent Peter Hasak, who's spearheading the project. "So a bunch of us got together and decided that we needed a specific course of action to figure things out."

Winterkill can be caused by many problems, including turfgrass fungi, ice damage, desiccation and direct low-temperature kill. The ability to correlate weather events with turfgrass injury will be an important aspect of the study, according to Mary Owen, one of the participating UMass turf specialists.

Study: golfers OK with paying more for 'green' courses

Anderson, S.C. - Golfers are willing to pay more to play golf at courses certified as environmentally friendly, according to research conducted by Anderson College finance and economics associate professor Peter C. Melvin, along with Frank Limehouse and Robert E. McCormick of Clemson University. Courses certified by



Audubon International raised rates more than noncertified courses between 1995 and 2002, according to Melvin.

The research was conducted to determine the significance of environmental golf and how much golfers are willing to pay to play where the environment and wildlife are protected. There are costs to golf courses to become environmentally certified, but analysis shows the benefits outweigh the costs.

The study shows that on the national level, the demand for golf is elastic or sensitive, meaning golfers are responsive to changes in the price of golf. An elastic demand for golf means the average golf course can raise revenues when it decreases green fees because the increase of golf rounds will offset the loss in pricing.

Experts address superintendents

Canfield, Ohio - Almost 100 golf course superintendents from Pennsylvania and Ohio attended Bayer Environmental Science's Conference at the Border in January.

Hosted by Jerry Cox, superintendent at Tippecanoe Country Club, the conference featured an educational program and gave superintendents the opportunity to earn professional educational credits and state certification. The group heard the latest research findings from university

Penn State plant pathologist Wakar Uddin warned anthracnose is a growing concern in the Mid-Atlantic region.

This is usually a disease of stressed turf, but recently it's attacking vigorous turf," Uddin says. "It's becoming more aggressive and more virulent."

Karl Danneberger, Ohio State turfgrass specialist, stressed the basics: proper water management, good air movement across greens and managing organic matter accumulation.

"Small things impact turf growth," he says. "You can have all the money you want in your budget, but without good agronomic practices, you will lose your greens. Money will cover up poor management for a while, but the problems will catch up to you."

Penn State turfgrass specialist Thomas Watschke advised superintendents to suppress Poa annua seedheads on annual bluegrass as a best management practice. He says to keep suppression goals reasonable. Even 50 percent suppression means 50 percent better playability, and anything in the 50-percent to 80-percent range should be considered good.

Ohio State entomologist Harry Niemczyk says the reason for almost every instance of unsatisfactory pest control is that the control agent didn't reach the

"There's no evidence there's resistance buildup to the compounds we have,"

Rather, Niemczyk says the likely causes for problems are poor timing of application, equipment difficulties causing rate or distribution problems, improper watering of material, or material getting tied up in thatch and not reaching its target.

Golf clubs using handicap system must be licensed

Far Hills, N.J. - All golf clubs using the USGA Handicap System are required to be licensed by the United States Golf Association by Jan. 1, 2006 to continue to provide a USGA Handicap Index.

"By adopting this licensing policy, we are trying to accomplish several things," says Jim Vernon, chairman of the USGA Handicap Committee. First, we want to ensure the integrity of the USGA Handicap System by promoting uniform and consistent usage of it. Second, we want to demonstrate to golfers the value in having a bona fide USGA Handicap Index compared with others that aren't. Finally, we hope to promote increased knowledge of the system among club officials, who will, in turn, be able to provide enhanced service to golfers at the grass-roots level."

The licensing process requires clubs to provide information demonstrating their full compliance with the USGA Handicap System. Such compliance will include meeting the definition of a golf club and satisfactorily completing a checklist furnished by the USGA.

Seabreeze GT performs well in salt trial

Hubbard, Ore. - One of Turf-Seed's slender creeping fescue varieties, Seabreeze GT, demonstrated the best survival rate among commercial varieties in a threemonth study in which the varieties were exposed to salt levels of 10,000 ppm of



NaCl for 12 weeks. Pure-Seed Testing conducted the study.

Seabreeze GT ranked as the top performer and had a survival rate of 99.3 percent after 12 weeks of being in the salt bath. After collecting data through the 10th week, Seabreeze GT had yet to show any signs of damage from the salty environment.

Seabreeze GT originally was bred for its natural tolerance to the nonselective herbicide glyphosate. It also has an endophyte content of 12 percent.

For more information about the variety, visit www.turf-seed.com.

Association news

Environmental Institute elects officers, trustees

Lawrence, Kan. - The Environmental Institute for Golf elected officers and welcomed three new members to its board of trustees during its winter meeting at the 2005 Golf Course Superintendents Association of America Education Conference and Golf Industry Show. Michael J. Hurdzan, Ph.D.,

of Hurdzan/Fry Golf Course Design, was elected

Environmental Institute for Golf

chairman. Bill Kubly, owner and c.e.o. of Landscapes Unlimited, was elected vice chairman/treasurer. GCSAA secretary/treasurer Ricky D. Heine, CGCS, was added to the board of trustees and will serve a three-year term as secretary of the institute.

ESPN/ABC broadcaster Roger Twibell and Nike Golf president Bob Wood also were added as trustees and will each serve three-year terms.

Chuck Yash, a consultant for the golf industry, and Mark J. Woodward, CGCS, GCSAA immediate past president, retired from the board of trustees. Tom Chisholm, retired vice president of Eaton Corp. and past chairman of the USGA Green Section, will serve on the board for one year as immediate past chairman.

\$167,000 raised at silent auction

Orlando, Fla. - The Golf Industry Show silent auction - conducted by The Environmental Institute for Golf, the National Golf Course Owners Associa-

tion Foundation and the American Society of Golf Course Architects generated \$167,000 for environmental pro-



grams including research, education and player development programs. A total of 109 companies donated 160 items. A complete listing of donating companies can be found at www.eifg.org.

Additionally, Mike Grilley, golf course superintendent at The Links Golf Club in Post Falls, Idaho, won an all-expense paid trip to the 2006 GCSAA Education Conference and Golf Industry Show in New Orleans. His name was chosen from a list of those who participated in the silent auction.

Project EverGreen debuts at GIS

Orlando, Fla. - Project EverGreen debuted at the Golf Industry Show by presenting a message relevant to the industry: Well-maintained green spaces provide economic, lifestyle and environmental benefits to consumers.

Project EverGreen is a nonprofit alliance of green industry professionals in all facets of the business. The group has been endorsed financially by the Golf Course Superintendents Association of America since its inception in 2003.

Project EverGreen is trying to expand its presence in the golf course industry. Further discussions are planned with the Golf Course Builders Association of America, Ameri-

can Society of Golf Course Architects and Professional EverGreen

Fund-raising goals for 2005 include \$1.1 million in cash and donated services for a trade and consumer media campaign.

GCSAA unveils search engine

Lawrence, Kan. - The Golf Course Superintendents Association of America launched the latest version of its new search engine designed for the golf course management industry. Fore! was unveiled at the 2005 GCSAA Education Conference and Golf Industry Show. Available

as an exclusive member supremiteron service, Fore! works by searching and indexing only Web sites designated by GCSAA

administrators. It provides users only qualified results and then organizes the results into specific categories. For each category, users will have access to the top results, along with a link to view all of the results in that category.

The search engine has six categories:

- GCSAA results from gcsaa.org and other GCSAA online properties;
- Publications/media results from the association's monthly magazine, other publications and other golf industry-related Web sites;
- Chapters results from 104 GCSAA affiliated chapter and student chapter
- Universities/organizations results from the National Golf Course Owners Association, the United States Golf Association, universities and dozens of other related groups;
- Regulatory/compliance results from government Web sites or independently operated sites that provide regulatory and compliance information; and
- Industry results from GCSAA 2005 Golf Industry Show exhibitor Web sites. Beginning in August 2005, the search will be revised to include the Web sites of all GCSAA affiliate member companies.

Oregon group receives award

Orlando, Fla. - The Golf Course Superintendents Association of America board of directors selected the Oregon Golf Course Superintendents Associa-

tion for its 2005 President's Award for Environmental Stewardship.



Rod Nelson, president of the OGCSA and superintendent at Camas Meadows Golf Course, received the award at the Golf Industry Show.

The President's Award for Environmental Stewardship was established in 1991 to recognize an exceptional environmental contribution to the game of golf.

Regulatory standards and public expectations increasingly demand protection of the environment from pesticide applications. In response to these concerns, the OGCSA developed a document to provide golf course superintendents with a working model to implement standardized best management practices, an integrated pest management plan and a water quality monitoring plan. For more information, visit www.ogcsa.org.

Course news

Course in El Paso being developed

El Paso, Texas - Tom Fazio was in El Paso for the groundbreaking ceremony of the El Paso International Airport Golf Course project in February. The project is part of the first phase of the development of El Paso's first resort hotel.



"Integrated within a planned 150-acre industrial park, this new addition will function to complement the largest, most

modern Air Cargo Center on the U.S./ Mexico border," says Patrick T. Abeln, director of aviation.

The 18-hole golf course will merge the beauty of the desert with modern golf course design. The golf course is part of an overall plan to support the airport's growing air cargo industry, as well as associated industrial and commercial uses.

Course in Florida under construction

Lakeland, Fla. - A meshing of a 7,300-



Steve Smyers is helping develop the Bridgewater Golf Club in Florida.

yard golf course and 260 acres of lakes and wetlands will be the hallmark of the Steve Smyers-designed Bridgewater Golf Club, which is under construction. The 600acre Bridgewater property will contain 800 houses around five lakes.

Crucial to the project, which is being built by Phillips Development of Raleigh, N.C., is the restoration of 32 acres of distressed wetlands on the property. The development will turn an overgrown marsh into a water-cleansing and wildlife-enhancing habitat, as well as make earth available to design movement on the course and build up areas of the flat property.

John G. Walton Construction of Mobile, Ala., started rough-shaping the course March 1, and Smyers expects it to be grassed in August and open in

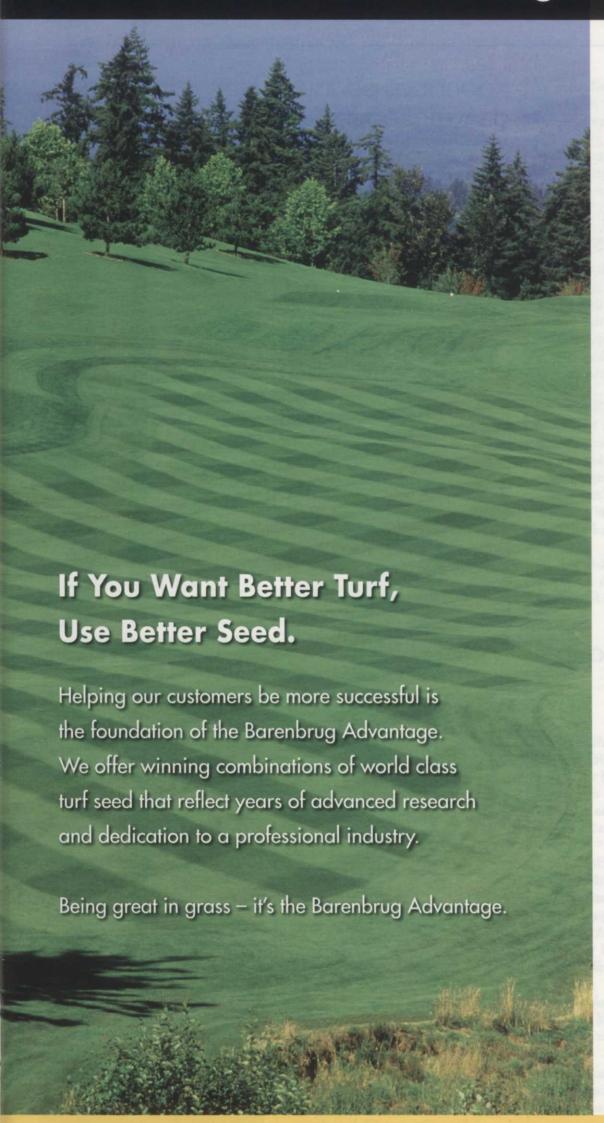
Smyers and Walton will create a 165acre wildlife corridor, including 64 acres of upland native plantings of trees and grasses. The remainder will be lowlands and wetlands.

Course to open in North Carolina

Raleigh, N.C. - Fred Ward, project manager for Atlanta-based Bluegreen Golf, selected NewCourse Golf of Carthage, N.C., to be the general contractor for golf course construction of the Chapel Ridge Golf Club in Pittsboro, N.C. The course will be the centerpiece for an 800unit housing community. Work began in September 2004, and the scheduled completion date is July 2005. The architect for the 7,100-yard layout is Robert Moore of JMP Design Group.

"Throughout the bidding and negotiation process NewCourse Golf displayed a great understanding of our needs and budget limitations," Ward says. "They provided us with many construction

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*US Patent 6,677,507

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For further information about the course, visit www.chapelridgeinfo.com.

Coco Beach course opens

Rio Grande, Puerto Rico - Coco Beach Golf & Country Club opened in March. Tom Kite, PGA Tour professional and co-architect of the 36-hole championship course, assisted the Diaz family and others in a ribbon cutting ceremony and officially opened the golf

The 36-holes at Coco Beach were designed as four different nines (the Mountain Course, the Ocean Course, the Lakes Course and the Palms Course) to provide golfers with four different experiences within one golf resort.

Guest fees for 18 holes are \$130 and include: green and car fees, a divot repair tool, a ball marker and tees.

The facility includes a 36-hole Kite/ Besse-designed layout with a practice facility and a 46,000-square-foot oceanfront clubhouse.

L'Auberge, Fazio developing new course

Lake Charles, La. - L'Auberge du Lac Hotel & Casino, a \$365-million Texas Hill Country-themed resort currently under construction, teamed up with golf architect Tom Fazio to bring a championship golf course to Southwest Louisiana.

Contraband Bayou Golf Club's course will complement the marsh lowland features of the natural Louisiana environment to enhance the 7,000-yard, par-71 championship golf course. A combination of aquatic and natural vegetation on the edges of eight lakes will challenge

The Contraband Bayou Golf Club will include a driving range, and each hole will have four sets of tee boxes to provide a challenge for all skill levels.

L'Auberge will sit on 227 acres of land and is scheduled to open this month. For more information about the course, visit www.ldlcasino.com.

Kaanapali course gets makeover

Maui, Hawaii - Kaanapali Golf Courses - a USGA-selected site for U.S. Open Local and Sectional Qualifiers for 2005 - is renovating its Resort South Course and clubhouse that will include a new irrigation installation, regrassing of greens and tee boxes and renovations to the bunkers and landscaped areas surrounding the course.

Robin Nelson, who has designed or redesigned more than 30 courses on the



Hawaiian Islands, will oversee the enhancements to the original Arthur Jack Snyder-designed layout. The Resort South Course closed April 1 and is expected to reopen Nov. 15.

In addition to the on-course improvements, the Kaanapali clubhouse interior will be redesigned with an a new retail look, including built-in shelves and storefront displays, and the spacious practice range and teaching facility will be revamped to include new target greens and new turf within the tee line.

Nelson has been hired to modernize to the 6,555-yard, par-71 Resort South Course, which opened in 1976.

ClubCorp to renovate three courses

Dallas - ClubCorp plans to invest more than \$3 million in capital improvements to three of its Dallas-area clubs, including Gleneagles Country Club in Plano, Las Colinas Country Club in Irving and Shady Valley Golf Club in Arlington.



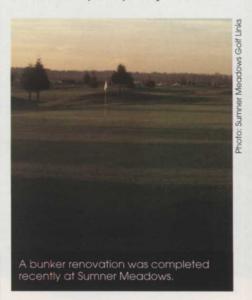
The investments are part of the company's CLUBCORP \$60 million in capital renovations, expansions and improvements for 2004. It plans to spend \$68 million in 2005 improving its clubs and resorts.

Improvements at Gleneagles Country Club and Las Colinas Country Club include complete golf course renovations. The \$1.5-million project at Gleneagles includes a complete renovation to its Queen's Course with rebuilt bunkers and the addition of new 419 Bermudagrass fairways and L93/Crenshaw bentgrass greens. At Las Colinas, the \$1.5-million project includes resurfaced greens, rebuilt bunkers with the addition of white sand, a new irrigation system around the greens and new cart paths. Shady Valley Golf Club spent more than \$300,000 renovating, refurbishing and improving its clubhouse.

Renovation completed at Sumner Meadows

Sumner, Wash. - A major bunker renovation project at Sumner Meadows Golf Links was completed recently. Thirty-five bunkers at the William Horn/ John Harbottle III-designed layout were completely revamped, including removal of the existing sand, reshaping of interiors and faces, installation of new drainage and refilling with new, high-quality sand. Kip Kalbrener of Ridge Top Construction performed the bunker work. New benches, ball washers and tee signs also were installed.

Additionally, Billy Casper Golf will





oversee the construction of a new clubhouse and the implementation of new player development programs and group lessons for women, beginners and juniors on the course's spacious, all-weather practice range.

Open since 1995, Sumner Meadows Golf Links is a 6,765-yard, 18-hole layout.

Emerald Greens establishes course in North Carolina

Tampa, Fla. - Emerald Greens at Carrollwood, developers of Emerald Greens Golf and Country Club, established a new ownership group, Longleaf Florida, and purchased a private 18-hole golf course and its facilities formerly known as The Club at Longleaf in Southern Pines, N.C. The country club features practice facilities, tennis courts, a pool with pool house and a 13,000-square-foot clubhouse. Members of Emerald Greens are able to enjoy reciprocal playing privileges with Longleaf Golf & Country Club (www.longleaf.com).

Additionally, Dan Maples Golf Course Design is working on the renovation of the golf courses at Emerald Greens Golf & Country Club (www.emeraldgreensgcc.com). Currently, the Cypress course is under major reconstruction and will reopen in August. The Meadow course was the first of the 27-holes to be renovated and opened in September 2004.

Puakea earns certification from NGCOA

Lihue, Kauai, Hawaii - Puakea Golf Course's Robin Nelson-designed layout received a "Beginner Friendly Certification" from the National Golf Course Owners Association. AOL founder Steve Case owns the 18-hole facility.

Puakea was selected from more than 6,000 NGCOA-member courses throughout the United States and Canada. Courses were evaluated on a number of criteria including availability of clinics, loaner clubs, special playing times for beginners and other initiatives. All courses receiving beginner-friendly certification are listed on a national Web site, www.getlinkedplaygolf.com.

Billy Casper Golf adds to portfolio

Middlefield, Conn. - Lyman Farms chose Billy Casper Golf to manage Lyman Orchards' 36-hole golf facility. BCG will provide management services at the multicourse property including clubhouse operations, course maintenance, financial management, merchandising, oversight of food and beverage, staffing and training, and marketing and public

Lyman Orchards, set on an 1,100-

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acre farm, houses two regulation length courses designed by Gary Player and Robert Trent Jones Sr.

Billy Casper Golf, which has a portfolio of 52 properties, also was selected to manage the 27-hole Village Golf Club in

Panorama Village, Texas. BCG's plans at The Village Golf Club call for rebuilding nine greens on the Winged Foot Course and regrassing the putting surfaces with Miniverde, a new variety of Bermudagrass. Also, there are plans to remodel the

banquet hall and kitchen, create a separate golfer lounge area, bring on new course equipment and a cart fleet, structure a new membership pricing plan and undertake other course conditioning and facility

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Personnel news

Jim MacDonald, retired golf course superintendent at New Haven Country Club, was named the Connecticut Golf Course Superintendents Association superintendent of the year.

Tom Harrington is the new superintendent at Marshfield (Mass.) Country Club.

Tom Stone is the new superintendent at Indian Pond Country Club in Kingston, Mass.

Golf Course Managers Association of Cape Cod members Joe Felicetti, superintendent at Pinehills Golf Club, and Jim Small II, superintendent at Olde Scotland Links, became certified golf course superintendents designated by the Golf Course Superintendents Association of America.

Blake Garrett is the new superintendent at Farm Links in Sylacauga, Ala.

Jim Fitzroy, superintendent at Presidents Golf Course in Quincy, Mass., was elected to the board of directors of the GCSAA. Fitzroy also was president of the New England branch of the association.

Alan D. Hess, CGCS, a 25-year member of the GCSAA, was named president of the Lonestar GCSA for 2005, succeeding Jamie Kizer of Austin, Texas. Hess is a member of South Texas GCSA and a member of the British and International Greenskeepers Association. Also, Hess is the director of course management for Golf Partners Management, and serves as the superintendent of Augusta Pines Golf Club in Spring, Texas.

Cory Nelson was named superintendent at Lakeview Golf Course in Ralston,

Kathi Driggs was named c.o.o. of the Club Managers Association of America. GCN

Cooperative efforts

olf course superintendents are known for sharing information freely and providing hands-on help sometimes. It's one of the great things about the profession. My contention is the vast majority of superintendents - and golf course owners and managers - fail to think creatively enough about ways to work together. The common denominator when brainstorming about how you might be able to work with your neighbors is to ask the question: "What's good for us - not just you or me?"

One of the strongest examples of cooperation took place in the mid-1990s in the Orlando area. Four courses, all located on what's called The Ridge area, shared a common problem. They are located near Disney World, but on the wrong side of Disney, in an area that, in 1993, was relatively undeveloped.

The four courses are Ridgewood Lakes, Southern Dunes, Diamondback and the Grenelefe Resort (which has three courses). The facilities are within a 15-mile distance of each other in an area, which then, was part of a new development. They were head-to-head competitors in the middle of nowhere, as perceived by the metropolitan Orlando market and the eastern New Tampa, Plant City and Lakeland markets.

Despite being relatively close together, their main competition was the more established areas in and around Orlando, and to a degree, the eastern part of Tampa. I wrote a plan for the four to work together and attract players. My analysis was that The Ridge courses were prime for discovery by golfers. In fact, we were able to use the reputation of Grenelefe Resort (PGA Tour qualifying held annually at the West Course) as a means to elevate the desirability of the other new courses. As a golfer, it was easy to get on the courses because they weren't crowded.

The four courses agreed to work together to promote golf on The Ridge. The target market was golfers in the metropolitan Orlando area.

The first suggestion of cooperative marketing came from the v.p. of operations or c.e.o., but it easily could have come from superintendents thinking outside the box. They know their products and their competitive strengths. In marketing, the first major competitive advantage is location. So, what happens when a course fails to have a location advantage? You create your own competitive advantage. In this case, we were able to use a portion of the four facilities' advertising budgets to generate awareness of the area's created competitive advantage.

Create you own advantage

In Al Reis' and Jack Trout's book, "The 22 Immutable Laws of Marketing," the first immutable law is leadership. Be a leader. Create a category of business in which you can be first. Their book states: "It's better to be first than it is to be better. It's much easier to get into the mind first than to try to convince someone you have a better product than the one that got there first." The question they ask to illustrate this point is: Who was first to fly over the Atlantic Ocean solo? Answer: Charles Lindbergh. Now, who was second? I'll bet there are few people reading this column that thought of the name Bert Hinkler. And did you know that Hinkler was considered the better pilot?

With Lindbergh holding the title of leader or first in this category, how does someone compete? According to Reis and Trout, if you can't be first in a category, then create a category in which you can be first (the law of category, immutable law No. 2). Example: What's the name of

the third person to fly solo over the Atlantic Ocean? If you didn't know that Hinkler was the second person to fly over the Atlantic you might think you had no

chance to know the name of the third person. But you do. It was Amelia Earhart. Now, was Earhart known as the third person to fly solo over the Atlantic Ocean, or as the first woman to do so? She created her own category in which to be first.

We took this approach for The Ridge courses. During the winter, the in-season in Florida, every day in Central Florida is a Saturday as it relates to play levels. Courses are at or near capacity, even on The Ridge. The troubling season is summer. And part of that trouble was caused by the sometimes torrential rains in Florida. They might last a relatively short while, but they can flood a course with poor drainage and make it unplayable even though the sun is shining. That was a rare occurrence on The Ridge because it enjoyed a higher elevation and faster drainage. We took advantage of this fact in the joint marketing effort. We created a new category in which the courses could be leaders - "When it rains, play The Ridge. We're open." As a result, the four courses enjoyed stronger summer play in 1993, 1994 and 1995.

Come together

Golf courses compete for players, and one part of that competition is attracting core players to your course and earning their steady business. Another part is to get new people to play.

Alliances are one marketing approach to consider, but the marketing concept has to make sense, and it has to stand out from the competition. Doing what everyone else is doing can create a loselose situation. The Orlando market fees of \$25 to \$29 per round common in the area mean no one is making money. Some courses worked with hotel employees to pass out discount coupons to attract more golfers during the off-season. It worked for a while, but now coupons and rebates are common, and they're passed out yearround. In short, everyone's losing.

Still, opportunities abound in golf for

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IT'S POSSIBLE TO GENERATE

IDEAS THAT HELP YOUR

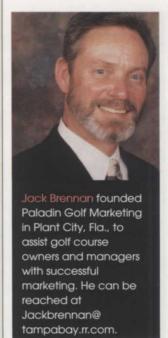
COURSE AS PART OF A

COOPERATIVE EFFORT.

alliances. Superintendents can work with other superintendents. General managers can work with other general managers. The common ar-

eas for an alliance include maintenance, attracting employees, buying products, training and increasing play by attracting new players. And you don't have to align yourself with only your competitive counterparts. By thinking creatively, it's possible to generate ideas that help your course as part of a cooperative effort.

This works. Four years ago, I helped found Golf Course Business Consultants. It's an incorporated affiliation of 15 industry consultants and service providers who work cooperatively to provide owners and general managers with expert advice. It's a situation in which everyone gains ... and that's smart marketing. GCN





licensed golf course architect and president of GolfScapes, a golf course design firm in Arlington, Texas. Brauer, a past president of the American Society of Golf Course be reached at jeff@jeffreydbrauer.com.

Maintenance in mind

ow does maintenance affect design?" This is an often asked, but not new, question. Golf course architecture articles in the 1960s usually mentioned the design triangle of aesthetics, playability and maintenance, and cautioned about the necessity of designing for maintenance.

In 1977, I was an apprentice at a firm specializing in municipal golf course design and cost-effective renovations. Usually clients weren't flush with cash, so the firm's design triangle wasn't an equilateral triangle. It leaned heavily to the maintenance side.

I, and many others, felt the era of great design was over, and pure design would never rise again because the economics of golf were the most important consideration. Golf courses have never been pure art because they have a business side.

The Reagan/Clinton years reversed that long-standing trend and proved me wrong. A growing game and a healthy economy provided most courses enough cash to go beyond the basics of design for maintenance. Emphasis changed to the spectacular and perfectly maintained courses. Many great courses were designed, and their maintenance made them even better. The longest side of the triangle was the aesthetics side, and many courses accepted the additional maintenance costs associated with these features.

However, golf course design in the '20s, '80s and '90s involved short-sightedness because the industry forgot it goes through economic downcycles, proven by the depression and the recession that partly stemmed from 9/11. As maintenance costs escalate because of inflation, and courses have trouble finding more new players or charging existing ones more to cover costs, architectural features will continue to suffer because economics dictates doing what's necessary to survive. In this case, it's the money, not the principle.

I see club management and superintendents asking hard questions about design and maintenance. I see the triangle restoring itself more equilaterally. Golf course architects and superintendents are finding ways to do more with less, including altering golf design features to ease maintenance.

Practicality will prevail for the next several years. If no one has played from a bunker in recent memory, why spend money maintaining it? While a bunker might provide beauty, beauty doesn't appear on the balance sheets. Most courses will be built - or rebuilt - with profit and practicality in mind. Design features will be scrutinized closely again to see how much they contribute to play and reduce maintenance or speed of play. Inefficient features that don't serve many functions won't survive in many places. Courses might experience the following:

- 1980s- and '90s-style mounding should vanish because of mowing production and reduced water consumption.
- · Greens will become flatter in the middle to ease and speed putting, and on the edges to avoid those perimeters drying out. If one wants 6,500-square-foot greens, 6,500-square-foot greens will be built, not highly contoured 9,000-squarefoot greens with the same cupping space as smaller ones.
- Green speeds should remain constant, but not reverse, for faster daily play. Faster green speeds will be reserved for special occasions.
- Tees will return to purely functional status. They'll be gently curved to fit the landscape and turning radius of mowers. Artistic free form and rectangular shapes that are hard to mow or that waste space will be gone.
- New tees will be built. Small ones will be tucked into the furthest pockets of the golf course to service the new generation of long hitters. Bigger ones will be built or expanded further up front so superintendents can move play forward on any
- · Similarly, little touches such as elaborate tee landscaping will be reduced to clubhouse areas or clusters of tees.
- Tees with stair steps of tee height grass have been disappearing faster than suburban farm land. The 50 square feet of artistic, but highly maintained tees, will be deemed a waste of resources.
- Narrow fairways will remain in vogue because the money it takes to mow, water and spray, a 200-foot-wide fairway is too costly to provide a tee shot option that few understand and fewer actually use.
- · Most holes with a second, strategic fairway will be reduce to one because of the theory that one fairway per hole is sufficient.

- Astute superintendents will contour mow fairways, leaving them wider within 250 yards off the tee to help average players quicken play.
- · While fairways will narrow, play corridors might widen. Removing the innermost row of trees allows greater production in rough mowing and reduces the number of lost balls.
- Roughs will become shorter, typically only as deep as necessary to provide visual contrast to fairways.
- Bunkers might become as rare as the buffalo, and the number of bunkers might depend on how many can be raked before noon. Some sand bunkers will be converted to grass bunkers. There might be a trend toward bunkerless greens that are furthest from the maintenance area to reduce travel time.
- · Bunkers also will be flatter to minimize sand washing because players want a perfect playing surface and superintendents hate the unscheduled maintenance after rainstorms.

These changes are much like responses to golf's economic situation in the 1930s and 1960s. However, quality expectations have improved too much to allow maintenance quality reduction. We won't go back to quarter-inch greens of the 1970s. Technologically superior grasses and mowers will allow better maintenance in less time, and course management technology, such as cart-based GPS units, will continue to speed play.

The bottom line of golf course design will be the bottom line. That's been true whether times are good and designs are extravagant, or the economy is poor and designs are practical. Perhaps the saddest part is that we forgot the lessons of the past. Although it's hard to predict the future, it's easy enough to know difficult economic times mean the maintenance side of the design triangle can never be ignored.

Design features that can't be maintained easily will be gone within a decade. I ask superintendents during construction how a feature affects their maintenance. Usually, they aren't bashful about telling me, and you shouldn't be bashful about discussing that with your architect either. After all, the goal of most renovations is to help maintenance costs without hurting the product. GCN

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can be found on www.

golfcoursenews.com.

Golf's driving engine

[During my 25-plus-year career as a golf course developer and consultant, I've interviewed and specifically challenged the teaching techniques of more than 100 golf professionals and assistants applying for jobs with my firm's clients, and independently audited a similar number of private lessons and clinics.]

The art and science of golf instruction should: bring waves of new players to the game, but doesn't; elevate the quality of play throughout the country, but doesn't; drive golf professionals' careers, but doesn't; and be universally respected as a unique discipline, but isn't.

The evidence to support these premises isn't difficult to find. For example, when I was serving as the executive director of the Metropolitan Golf Association during the 1970s, it generally was understood that there might be fewer than a dozen guaranteed effective golf instructors throughout the more than 400 golf courses in the New York Metro area - a situation that hasn't changed appreciably today.

Think about it. There are more than 26 million golfers throughout the country and, maybe, there are 1,000 or 2,000 guaranteed effective golf instructors. This translates to about one proven golf instructor for every 18,000 golfers. This is primarily why 3 million players leave golf every year. The industry is committed to bringing more players to golf, but not committed to bringing more and better teachers to the game. Do we not have the cart before the horse?

Without an increasing number of qualified golf instructors, player development will continue to stagnate ad infinitum. Generate the teachers, and the players will follow. How can this best be done?

Redefine the job

The implied career job description of the golf professional should be restructured to reposition the responsibility for teaching the game as the primary objective throughout present and future generations of professionals' careers. Improved teaching will better the game and nurture a golf professional's career like nothing else. Respected teachers will always control their career destiny.

Once restructured, the golf professional's career mission statement would become a beacon for those expecting to pursue meaningful golf professional careers. With the beacon lighting the way, aspiring golf professionals soon will learn that only by using better visual technology, teaching macroprinciples before microprinciples and by developing an absolute passion for teaching golf will they be able to develop the skills needed to become effective teachers.

Schools present opportunity

It will take time for golf professionals to accept and grow into the practice of priority teaching. But can anything be done to speed the process? Fortunately, yes. As leading golf organizations are now saying, by focusing golf instruction on the millions of students within the country's school systems, both the player development process and the body of golf instruction would be quickly energized. Why? Because the excitement if filling new teaching jobs to bring the game of golf to a vast young and receptive audience would carry the day.

To confirm this premise, some enterprising/aspiring golf professionals are already preparing to gain access to the California school systems, i.e., preparing to be hired as PGA/LPGA qualified golf coaches in the same manner as football, basketball and baseball coaches are hired and retained. All fringe benefits, including tenure and pension programs that apply to state employed teachers, similarly would apply to golf coaches with classroom responsibility, or full-time instruction schedules.

Accordingly, it would be prudent for the PGA and LPGA to present workshops that would educate members and other interested parties (for a projected new school class of membership that would likely double overall PGA/LPGA memberships in the coming years) to the opportunities school systems present and the process of how to qualify for these evolving jobs through applications for state teaching licenses.

A numbers game

Baseball is an example of one of several sports that produces almost unlimited statistics; i.e., batting averages, RBIs, ERAs, wins/loses, saves and the number of innings pitched are just a few. Baseball would never have earned its mantle as America's pastime without having taken full promotional advantage of the numbers it generates.

Golf is as much a numbers-generating game as baseball, football or basketball. Yet, it has done little, if anything, at the vast amateur level to take advantage of its numerical environment. It's time for this to change.

Data capture

The first thing golf would have to do is establish a mechanism to capture scoring and performance data. The individual player stat sheet on the facing page is a suggested approach to provide this capability.

Once in play, the stat sheet offers unlimited opportunity as to how it might be best used. For example, the stat sheet would be used within an interactive e-mail exchange network between golf instructors and their students who would input per round playing data for the instructor to analyze, respond to via e-mail and plan future lessons around.

Then, the fun really begins. Why couldn't golf clubs/courses generate top-five performance profiles (for each of the six player categories) from stat sheet data much in the same way, in part, as the PGA Tour does weekly and publish the results in their newsletters and/or Web sites? (Nonstudents could participate via a simplified data capture mechanism.) This focus would motivate players to improve their skills and spark more players to take instruction, while at the same time increasing the overall enjoyment of the game.

Career promotion

Finally, we can't overlook how the use of the stat sheet would immeasurably advance the careers of golf instructors. As my November 2004 column suggested, golf course superintendents should develop personal career Web sites to better advance their careers. This concept also aptly applies to golf professionals' careers. A Web-site link would be the ideal way to present a professional's teaching credentials and success. Stat sheet data, supported by almost endless graphic possibilities (see two sample graphs on facing page), could be made to dance within Web site presentations.

The engine that will drive golf to realize its long-range goals is quality golf instruction because only better teaching will generate more players, which, in turn, will generate more rounds, greater merchandise sales, larger TV audiences and the development of more golf courses.

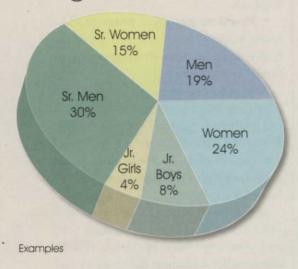
The good news is the opportunity to upgrade the quantity and quality of golf instruction is virtually unlimited. GCN

Individual player stat sheet

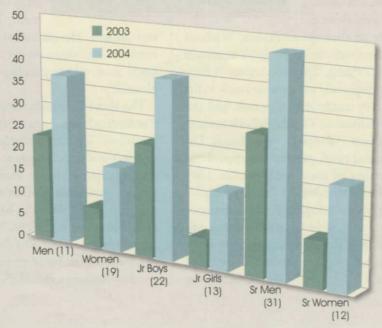
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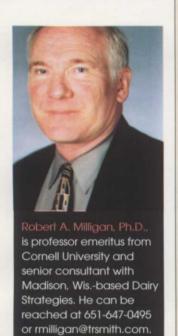
Example

Percentage of members taking lessons



Annual rounds played totals/ Student groups





Benefits of feedback

e all want and need feedback, often dread receiving feedback and frequently are uncomfortable giving feedback. Few of us really understand feedback or manage the process of providing feedback.

Dictionary.com defines feedback as: "The return of information about the result of a process or activity; an evaluative response." To understand the critical role of performance feedback in employee management, consider the following statements:

- · Each of us are constantly giving and receiving feedback, if not explicitly, then implicitly;
- · Performance is influenced the most by consequences; and
- Good performance should be treated differently than poor performance.

The bottom line is that each of us continuously provides employees with feedback, and that feedback impacts performance. When we use implicit and unplanned explicit feedback, we will often provide inappropriate feedback - with negative performance consequences. When you have a friendly, positive interaction with an employee who's performing poorly, what message do you think he receives? When you interact with an employee whose performance exceeds expectations while you're in a bad mood, what message do you think he receives?

The absence of feedback and unintended or inappropriate feedback is a major barrier to superior performance.

Feedback informs employees about the

quality of their performance. Without good feedback, an employee is uncertain how he's doing. This uncertainty is frustrating, especially to employees early in the process of mastering a new task, and can be demotivating. Good feedback reduces uncertainty and increases motivation. The majority of employees are uncertain about the quality of their performance. They don't know whether they're "winning."

The key to using feedback to enhance performance is providing feedback appropriate to the performance. Appropriateness has two key attributes. First, the feedback is focused on the performance, not on the person. This is especially critical when performance is below the expected standard. Second, the feedback must correctly communicate the supervisor's assessment of the employee's performance. The latter attribute requires the following three forms of feedback rather than the usual two (positive and negative):

- Positive used when performance meets or exceeds the standard;
- Negative a reprimand, a punishment, a demotion, removal from activity - something bad from the employee's perspective. This should be used when performance doesn't meet the standard because of a personal characteristic, behavior of attitude of the individual; and
- Redirection incorrect performance is stopped and redirected using training. This should be used when performance doesn't meet the standard because of something in the context of the performance.

A morale builder

WHEN WE USE IMPLICIT

AND UNPLANNED EXPLICIT

FEEDBACK, WE WILL OFTEN

PROVIDE INAPPROPRIATE

FEEDBACK.

As I approached the registration desk in the nearly vacant lobby of an economy motel, my hope was to complete a hasslefree registration and get to my room. I was surprised when a friendly, helpful gentleman asked if I needed anything special or any local information. I thanked him and proceeded to my room with a little extra bounce in my step. When I passed the registration desk on my way to grab a bite

to eat, he called me by name. I stopped and thanked him for the unusually good service. Although a bit self-conscious with my compliment, he obviously

was pleased. He succeeded in providing excellent customer service, and we had made each other's evening a little more pleasant.

The above illustrates the power of positive feedback as a morale builder and as a motivator. We must, however, be careful to use positive feedback to reward only successful performance. Positive feedback serves as positive reinforcement causing an action or performance to be repeated. Although this seems obvious, it's not. We often want to use positive feedback to reward good intentions; however, remember that good performance should always be treated

differently than poor performance.

Why is positive feedback beneficial?

- · Positive feedback focuses the recipient on success. It serves as a reward to the recipient for an outcome or an action that contributed to business success. This reinforces the success-creating behavior and causes it to be repeated. Individuals and teams perform better when striving for success rather than when avoiding failure.
- · Positive feedback is motivating. Feelings of personal accomplishment and recognition for achievement are two motivators. Positive feedback provides both and also might provide a third: a sense of importance to the business.
- · Positive feedback builds confidence. Continuing successful performance requires that we know the skills and that we have the confidence to perform perfectly every time. Because the confidence follows the skills, positive feedback enhances that confidence and prevents slippage.
- · Positive feedback improves job satisfaction. Recall my hotel experience. Recall a recent experience when your spouse, family member or friend told you about positive feedback they'd received.

How can we feel more comfortable giving good positive feedback?

- · Become success-minded. You can reinforce the vision and provide positive feedback by continuously looking for actions and results that contribute to that vision and then always providing positive feedback. Look for successes.
- · Practice appreciative inquiry. Ask your employees what's going right and use their answers to provide positive feedback.
- · Practice, practice, practice. The more positive feedback you give, the better you'll become. Practice with your family and your friends.

The outcome we should seek is that providing large quantities of high-quality, positive feedback becomes a habit. Research finds that, for most of us, it takes a minimum of 21 days of practice before providing high quality positive feedback becomes a habit.

As you move into the heart of the golf season, I challenge you to increase your and your employees' job satisfaction by dramatically including the quantity and quality of positive feedback. GCN







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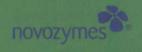
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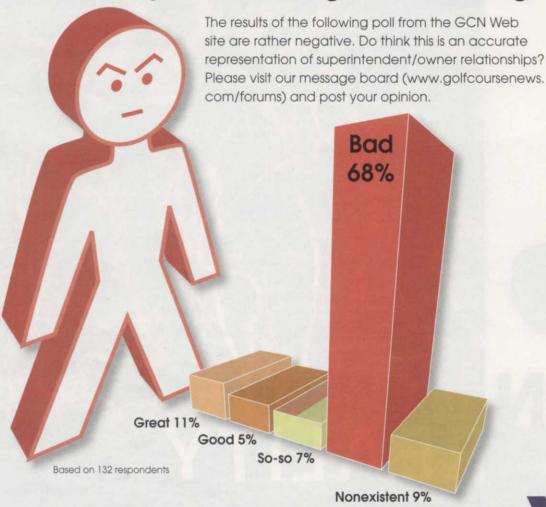
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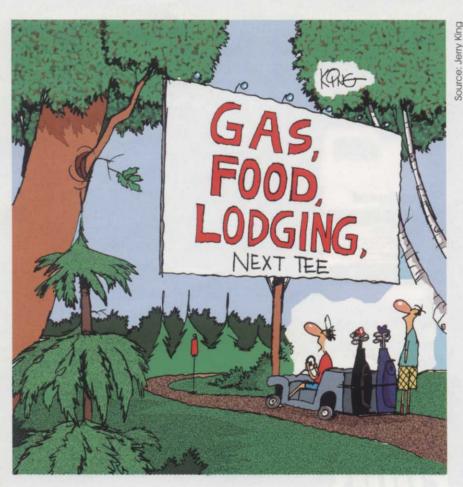
- * Rutgers, VA Tech, U of WI, MI State, Penn State and over 20 other major universities.
- **Anthracnose control Penn State and Rutgers research trials, 2004.





What is your relationship like with the owner of the course you are in charge of maintaining?





"This has to be the longest course I've ever played!"

BY THE NUMBERS

of the green industry who attended

The 17th hole on the Stadium Course of the Tournament Players Club at Sawgrass in Ponte Vedra Beach, Fla., is popular. One can buy its image on towels (\$22), tote bags (\$24), tall insulated glasses (\$17) or short ones (\$11), 16-ounce Tervis tumblers (\$16.50), ball markers (\$22 in a boxed set of three plus a divot repair tool), divot repair tool alone (\$12), bag tags (\$15), the sales tags of umbrellas (\$31.50), T-shirts (\$18 kids, \$25 adults), posters (\$22), marble coasters (\$50 for a set of four with stand), lap robes (\$55), limited edition photos by James Quonze Jr. (\$149.99-\$499.99) and official programs (\$5).

The number of golf courses that closed during 2004, according to NGF

? The number of households oper 18-hole equivalent golf courses in Maine, according to NGF

The median \$4 Florida, according to the National Golf Foundation

2,300

The number of new 9- and 18-hole golf courses that opened in California in 2004, according to

"I have the highest admiration for the group (of superintendents) growing grass in St. Louis. The saying goes, 'You can go from St. Louis to anywhere and be successful." - Tony Mancuso, CGCS, director of golf course operations at Cherokee Town & Country Club in Atlanta, and former superintendent at Bellerive Country Club in St. Louis

"Routing a course is like cutting a diamond, you only have one chance to do it perfectly." - Joe Salemi, owner, designer and builder of Boulder Creek Golf Club in Streetsboro, Ohio

"I like to do more than daily maintenance. I always want to improve a course. Some of these courses (in South Dakota) aren't the most desirable, but they need improvement and can boost my resume."

- Bryan Tipton, certified golf course superintendent at Eagle Ridge Golf Club in Williston, N.D.

"We like to consider ourselves a cut above everybody else, but that's just our opinion. We feel that way because we are often out in front doing things that others aren't doing." - Tom Watschke, professor of turfgrass science at Penn State University, about the university's turfgrass program





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A changing world

THE PAST, PRESENT AND FUTURE OF STUDYING TURFGRASS

JOHN WALSH

GOLF COURSE NEWS

INTERVIEWS DR. TOM

WATSCHKE, PROFESSOR

OF TURFGRASS

SCIENCE AT PENN STATE

UNIVERSITY

How did you get into turfgrass research?

The summer before I was admitted into dental school at the University of Iowa, I started to work at a golf course as a summer job in my hometown of Charles City, Iowa. And, as any turf person will tell you, it's almost an addiction. I call my students turf junkies because once it gets in your blood — if it's going to be something of significance

for you – you just can't let it go. So I deferred away from dental school and went into turfgrass management at Iowa State and earned an undergraduate degree.

Somewhere along the later stages of my undergraduate career, I became interested in research because

I worked in the greenhouse for the graduate students, helping them with their dissertation work. I started applying for graduate school and went to Virginia Tech for my M.S. and Ph.D. Those advance degrees were basic in the sense of academia because I was interested in plant physiology and biochemistry. So my research projects in most instances were pretty basic, rather than the applied sciences in the research world.

Getting closer to the end of my Ph.D. work and watching Dick Schmidt, my major professor, and what he was doing and what he had to go through as a faculty member at a good institution didn't move me much. I didn't want to have all the distractions of committees and classes. I wanted a research position. I convinced myself that I wanted to go to work for an agriculture chemical company that was producing a turf product line.

About six months before I finished, I began talking to others who were young faculty members who gave me a perspective about academic life that I hadn't realized prior to those conversations. Then I narrowed my choice to Penn State University because of the reputation of its turf program. I said, "If an academic position ever became open, I would like to be considered." So while on

hold, my predecessor, Tom Perkins, was looking to do what I thought I wanted to do, which was to go to an agriculture chemical company, and he did. That left an opening at Penn State. I was called and asked if I would interview, and I did. I liked what I saw and liked the turf faculty and fortunately was offered the position. I reported for duty as an assistant professor in October of 1970 and have been there ever since.

What are some universities on par with Penn State?

That's a hard one because all the land grant universities have good turf programs to some degree. That might be a single faculty member, or it could be a half dozen, or it could be more. If I was a high-school kid interested in turf, living in North Carolina, I would go to N.C. State because they have a really good program there. The same could be said of New Jersey – Rutgers has a good program. So does Ohio State and Michigan State. If I was growing up in Iowa, I would go to Iowa State, which has a good program.

We like to consider ourselves a cut above everybody else, but that's just our opinion. We feel that way because we are often out in front doing things that others aren't doing. For example, we have a two-year technical program that was initiated in 1959 before anybody else had anything of the sort. And it's still viable today.

We launched the first undergraduate degree program in which a student could get a B.S. in turfgrass science in 1992. There weren't any degree programs before that. Now there are four: Ohio State, Rutgers and Georgia followed us.

And for the past few years, we have had a world campus program, which is all on the Web. We have students from all over the world who take our turfgrass management programs on the computer.

We just received approval from the faculty senate to offer our four-year degree program online to students all over the world. A student anywhere in the world can earn a four-year baccalaureate degree in turfgrass science from Penn State on the Internet.

Has the number of students in the turfgrass program increased throughout the years? If so, why?

We've seen an increase, which has to do with the growth of the turfgrass industry and its diversity. You can say X percent of our undergraduates are going to become golf course superintendents, landscape contractors or athletic field managers. That dynamic tends to shift as students have interest in the job market. For example, the largest growth area for undergraduates is managing sports fields; and consequently, on a percentage basis, the largest increase in our undergraduate population who majored in turf has an interest in managing athletic fields, not golf courses. So the turfgrass industry at large is continuing to grow.

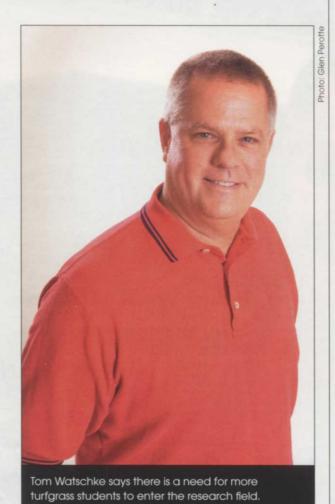
Is there a need for more students in the research field?

We need more talented academic students capable of graduate work. I don't mean that in a demeaning way about the students we have. We have some excellent students, but they want to be turf managing professionals. They don't have an interest in research or graduate school. At most, we have 2 percent of the total undergraduate population that has an interest in graduate school. And that's starting to bring about some problems as we look at trying to hire and fill positions like mine. Where are the young ones going to come from? There's a potential shortfall.

Do you see problems because of that during the next 10 to 15 years?

Yes. There's a fairly significant number of us old-timers who are going to retire, and





it's going to be a challenge to see how the void gets filled, not only because of the numbers, but also because of the diversity of research problems that need to be solved, which is a reflection of the industry's growth. Twenty-five to 30 years ago when I started, the Penn State research program was 99 percent oriented to the golf course, as was everybody else; but that isn't true anymore. There are research programs that deal with the environment, homeowner problems and athletic field problems. I placed an undergrad at Jefferson Memorial Park, a 650-acre cemetery, in Pittsburgh. Talk about another unique set of problems. So anywhere you see turf that needs to be maintained, a whole plethora of new problems that need to be researched emerges.

Q

Would marketing the research field help?

We've talked about that, recruitment and going to national agronomy society meetings a lot. It's competitive marketing. Universities are offering financially attractive opportunities for young people to go to graduate school. We're challenged because of the attractiveness of the positions that young people have. It's not so bad starting at \$35,000 a year, and in five years, a young person has earned a pretty good chunk of change that he wouldn't have had if he would

have stayed in graduate school. It's tough. And the other aspect of that is the better ones academically are the ones who go out the door with the highest pay without going to graduate school.

Who's funded most of the research you've done during your career?

The hard money universities have, particularly colleges that have agricultural sciences, is limited. We're fortunate the turfgrass industry is well supported. For example, the turfgrass council in Pennsylvania, through its sponsorships with us of trade shows and conferences, generates substantial funds for scholarships and research projects. And our industry partners, all the Syngentas and Bayers of the world, are very supportive of our research programs. So the soft money side, which is the side I just mentioned, has been our savior. If we hadn't had the soft money support, we wouldn't have come close to providing the solutions to all the problems we hopefully have been able to provide our clientele.

Do you predict changes with funding during the next 10 to 15 years?

Cooperators are pressured more and more to fund this and that. Institutionally, it's going to get smaller because the colleges of agriculture sciences are strapped. Universities are strapped and victimized by having to lobby for state appropriations and are being played like a pinball by legislators who want us to raise tuition, and students are caught in the middle. I've watched this for 40 years. It's the same old game. It's a gloomy scenario on the hard money side.

However, having said that, I submitted a research proposal to the Department of the Interior, specifically the U.S. geological survey, for funding on initiating our water quality research program. I received a three-year contract from the Department of the Interior. So here's a federal-level funding agency that stepped to the plate and helped out immeasurably. There are funds out there, but for turf professors to get a piece of that action, they have to be very innovative.

A lot of states are challenged right now, but there are initiatives that generate funds that are consistent in nature. For example, there's a fund-raising effort called the Pennsylvania Turfgrass Council Research Trust. The idea is to, through donations and capital contributions, develop a corpus of a significant seven-digit number from which the interest generated by the fund can provide sustainable support to the turf program rather than

living from year to year. However, the trust is designed to allow the corpus to be dipped into if money is needed for a major project or problem. But that would have to be an emergency. They are both smart, long-range ideas to sustain funding. Having a corpus provides a baseline need, and then it can be added to year by year so that we can keep up with inflation.

What is the most interesting research project you've worked on?

It would be the environmental water quality project, the one most people know me for and hopefully will remember me for. We started in 1983 developing a runoff facility that could evaluate the fate and movement of fertilizers and pesticides in water, both off and downward from the site. The project was partially funded by the university – that was the hard money at work. It also was funded by the turf industry – the turfgrass council, lawn care companies, golf courses. In all, the project required a fairly sizable amount of money to get the facility built, maintained, and to fund the graduate students.

We believe the facility has made a significant and lasting contribution to what we know in terms of turf and the impact turf has on water quality. What we found was the opposite of what was being talked about in the late '70s, which was that golf courses were toxic waste dumps and people who tried to have a nice lawn were polluting the world. We put a reverse spin on that and generated the data to prove that if you don't have some turf in your suburban ecosystem, you have a big problem because it's the buffer against many of the negative environmental inputs that exist when development occurs. We knew it all along, but there weren't any numbers to back us up. We were condemned by a doomand-gloom media as the bad guy.

We designed the facility to give us the worst-case scenario. When the irrigation system is on, the runoff is six inches an hour. That occurrence of a storm isn't on the chart unless you're in hurricane territory. We originally designed the facility to handle a 125-year storm, which is three inches an hour. What we discovered early on was that it's difficult on an established turf site to get the water to run off, so we had to re-retrofit our irrigation system to increase it to six inches an hour so we could get samples.

When was the project completed?

It will never be completed. There's always something new that's developed in the marketplace. Now it's lacking a graduate



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USE READER SERVICE #20



turfgrass research

student, and that is primarily because I'm retiring, but somebody will pick it up. It's a viable facility that will remain operative long after you and I are gone.



What's the greatest research finding during your career?

The one I just mentioned is one of them. It shows how favorable turfgrass systems are to the environment. And there have been a lot of advances in the improvement of turfgrass varieties, such as the fact that we can now seed Bermudagrasses and zoysiagrasses and some of these warm season species.

The whole arena of plant growth regulators, which have now been accepted by a lot of turf managers, has revolutionized some of the tools in the golf course superintendent's toolbox. There isn't a golf course superintendent these days who doesn't use plant growth regulators for something, whether it's seed-head reduction, assisting in renovation or conversion from one species to another, or cutting mowing costs. Thirty years ago, that would have been an unheard of position. The whole world of turfgrass science research is still in its infancy and continuing to evolve.



Is there a turfgrass problem that future research will solve?

The genetic engineering side of plant breeding. The breeding side of turfgrass management historically is painfully slow. It takes a long time, anywhere from eight to 10 years, to get a variety to market. That's a long time to wait for a plant breeder to do crossing and back crossing for specific traits to deal with some problems that exist now. The answers to a lot of our problems will come from graduate students trained in genetics and plant breeding and all the various high-tech innovations. We just don't have the student numbers.



Are there turfgrass varieties that will fall out of favor?

That's a given. In 1970, Merion Kentucky bluegrass was the best bluegrass on the planet, but it was susceptible to stripe smut, which wiped out Merion in a short period of time. So varieties tend to be cyclical in nature - they come and they go. Some have more staying power than others depending on how good they are. An example would be Penncross creeping bentgrass, which has been around for 50 years, and still has a pretty good market share. But one day, there's going to be some professor talking about Penncross to a group of students that have never heard of it. Varieties have a certain life span, and once it's over, it's over. Pennstar was a Kentucky bluegrass that lasted about two years. You never know whether it causes problems you didn't see

coming or whether it's going to have some failures on the seed production side, which can doom a variety that's of very high quality if it doesn't produce good seed yields. If it's a fickle seed producer, you can't expect an Oregon, a Washington or an Idaho grass seed grower to roll the dice. They're going to produce those varieties that yield the most because they're in the business of growing seed and making money. There's a lot of drivers that can influence the longevity or life of a variety beyond acceptance by the end user.

What's your take on Roundup-Ready creeping bentgrass?

It's a big enough headache. Five years ago, they said we'd have it next year. That's still what they are saying today. There are problems with developing genetically altered turfgrasses. For example, there's the whole issue of pollen movement, as we now know pollen can blow half a mile. That sure puts off alarms with people who are involved with concerns about invasive species, and that's considerable in Washington, D.C., these days. They don't want to have anything introduced that can have a natural pollen shed that will go out and cross with other native bentgrasses and perpetuate a gene that's Roundup resistant.

It's my take that what's being made of the potential problems is far greater than reality, but it's not defendable strictly from the standpoint of saying that the pollen doesn't spread. It does. There are proposals to breed around the problem by producing male sterility. When Roundup resistent cultivars ultimately get to market, you still have the end user that's going to be the one that makes or breaks it. If you are talking about \$80 a pound of seed and now leasing seed to people, there will be conversations that go on that I hadn't anticipated. You have to target a fairly large market in terms of a business plan that shows a return on your investment. I don't know how that's going to work because there are a lot of golf courses that already have awfully good fairways, and they deal with annual bluegrass without spraying Roundup.

What's the turfgrass variety that has had the biggest impact on golf in the past 30 years?

Penncross creeping bentgrass, and I don't say that because it's a Penn State variety. It's on more golf courses in the world than anything. It's aggressive, and it can be managed in a lot of different ways. It can be managed without a tremendous amount of input. On the other hand, it's accepting of management input to make it be what you want it to be. It has respectable dollar spot resistance. It brought to the table what a lot of existing varieties didn't. Many of the new varieties offer quality improvements over Penncross, but it's still one of the best selling creeping bentgrasses in the world.



What turfgrass variety is Penn State working on?

Our turf breeder, Dr. Dave Huff, is working on annual bluegrass. His collection of germplasms, which have been collected from all throughout the country, number more than 2,000. In terms of putting green types, this is a very specific for-greens-use-only type of annual bluegrass. When it's really good, it's probably better than bentgrass. But his dilemma is that the best ones from a turf quality point of view don't produce much seed. He has to figure out how to get around that. But he assures me there are some genetic tricks that can be played with tactics that will circumvent the fact that the best ones don't produce enough seed.



What's most exciting about turfgrass research now?

If there's an area young people interested in turf research are gravitating toward, it's sports field management. It's important to determine how many injuries on an athletic field were due to field conditions and how many were due to equipment. There's a significant influence that agronomic conditions have on injuries, and that will be actively researched. If you look 10 to 13 years down the road, you'll have that type of research. There will be continued research on improved varieties and work on the environmental side. You'll have the development of new products such as growth regulators and fertilizers. It's an industry that enjoys an awful lot of support because the return is there for people who are conducting research on the cutting edge.

Why are you retiring, and what do you plan to do after you retire?

I'm retiring to do other things, but I plan to stay active in the turf industry. I will continue to teach on the Internet after I retire. I will continue speaking, writing and working with agrichemical companies on various projects. So there's plenty to do. The difference is that if I get the fishing report and they're biting, I'll do work tomorrow and go fishing today. Controlling your own timetable is the most attractive part about retirement. Also, I'll be able to do more consulting because I've always been constrained by having limited availability in the past. GCN

Dr. Thomas L. Watschke can be reached via e-mail at tlw3@psu.edu.



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USE READER SERVICE #21

Taking the next step

SUPERINTENDENTS CHANGE JOBS TO FIT WHERE THEY ARE IN THEIR CAREERS

by JOHN

olf course superintendents change jobs for different reasons, and some do it more than others. The average WALSH tenure of a golf course superintendent at a club or course is nine years, according to a 2004 Golf Course News subscriber profile survey, but that average is likely to decline in years ahead. The most common reason for a superintendent to change jobs is to advance his career. However, before making that move, there's much to consider.

Making the move

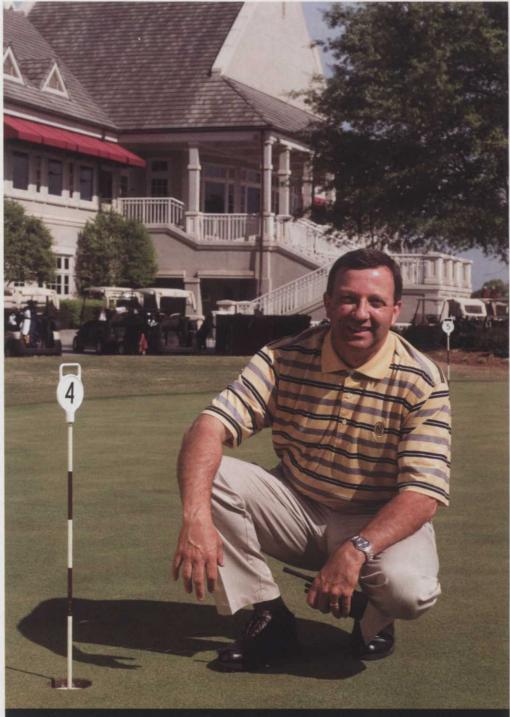
Tony Mancuso, CGCS, director of golf course operations at Cherokee Town & Country Club in Atlanta, made the move from Bellerive Country Club in St. Louis. While at Bellerive for six years, Mancuso hosted the 2004 Senior Open and had no intention of leaving. He says he had a wonderful relationship with the club's members.

However, the previous director of golf course operations at Cherokee, who knows Mancuso, gave a list of candidates for the job he was leaving to the club's c.o.o.

"I was on the short list," Mancuso says. "I got a call in 2004, a month after the Senior Open. The call came out of the blue. I had no thoughts of going anywhere."

Mancuso had to weigh a number of factors before deciding to make the move. His daughter had just graduated from high school and had been in a stable environment, and his wife was his administrative assistant at Bellerive, so there would be little adverse impact on the family if they

"I'm turning 50 this summer, and if there was a time to make a move, this is the time because you're not as marketable at 55 as you are at 50," he says. "The c.o.o. of Cherokee was looking for a candidate who was about 50 years old and planned to remain at this job until retirement.



A month after hosting the 2004 Senior Open at Bellerive Country Club, Tony Mancuso received a phone call about a job at Cherokee Town & Country Club.

"It's a perfect fit at the perfect time," he says. "It was going to take that to pull me away from Bellerive."

Shortly before Mancuso left Bellerive, the club's general manager left to work for a golf club in South Florida. This also played into Mancuso's decision to leave.

On top of all that, Mancuso says he received an improved compensation package with the new job.

Unlike Mancuso, Glen Misiaszek moved from a public course to a private club. Misiaszek, golf course superintendent at the 18-hole Cohasset (Mass.) Golf Club, has been there since January 2004. He came from Shaker Hills Golf Club, an 18-hole, highend daily-fee course, in Harvard, Mass.

Before Misiaszek took the job at the 110year-old Cohasset course, he interviewed with two other clubs. He was selective and didn't want to take a job at a private course just because it was the type of course at which he wanted to work. He wanted to work for committed members, and his wife wanted to live near the coast.

"Cohasset had a master plan," he says. "They we're building a maintenance facility. They had the funds. I clicked with the people I interviewed with, and they had a desire to put the course back to the way Donald Ross had originally designed it. We didn't even talk money when they called to offer me the job. It's an increase in pay, but because the cost of living is more expensive, it's a wash financially. Money didn't fill our pockets."

The move for Misiaszek had its challenges. Even though his wife had just finished graduate school, which worked out perfectly, she gave birth to their first child two weeks before they moved into their new house. That, along with buying one house and selling another, made the move more difficult, but everything worked out in the end, he says. However, being the new guy can be tough.

"I'm really confident on the job and am used to the business structure because I've done it before," Misiaszek says. "The personal changes were more stressful than the professional ones."

Unlike Mancuso and Misiaszek who left their old jobs by choice, Bryan Tipton, certified golf course superintendent at Eagle Ridge Golf Course in Williston, S.D., was terminated from his old job at Sutton Bay in Agar, S.D., last year.

"I was let go in June, but they didn't give me a reason," Tipton says. "I was offered the job at Sutton Bay in 2001, and in 2002, the course was built rapidly, and there was a short grow-in period. We started seeding in August and September and opened in June the following year. Sutton Bay is in the dead center of the state. It endures three types of climates, and the weather is unpredictable. In the winter of 2003-2004, we had damage on the greens.

"I wasn't a supporter of putting covers on the greens," he adds. "On the greens where we used green covers, which was on all 18 greens of the championship course, we had damage in the spring. The greens we didn't cover, which are on the par-3 course, were perfect in the spring."

Last summer, Tipton applied for jobs, and a fertilizer sales representative friend told him of an opening that was the right fit for him. It was a nine-hole course where the owner was adding nine holes, similar to the course Tipton worked at before Sutton Bay. After being unemployed for about six months, Tipton was hired at Eagle Ridge.

Personally for Tipton, the move was more difficult than his last job change because he also was moving his wife and stepson, in addition to finding a house and acquiring a mortgage.

St. Louis to Atlanta

At Bellerive, an 18-hole private course designed by Robert Trent Jones Sr., Mancuso says the budget was between \$1.2 and \$1.3 million. The course has zoysiagrass tees, fairways and surrounds and Crenshaw bentgrass greens.

"St. Louis is the worst place to grow quality turf," he says. "The summer temperature is way hotter in St. Louis than in Atlanta, according to the National Oceanic and Atmospheric Association. St. Louis is at a 300-to-400-foot elevation, and it's right by two rivers. The humidity is stifling."

Mancuso says the St. Louis winters are



One of the reasons Glen Misiaszek took the superintendent job at the Cohasset Golf Club is because of the members' support of the course.

feature Bermudagrass everywhere but greens because winterkill is less likely there.

"It's so much easier to maintain because it's all Bermudagrass," Mancuso says. "Guys in St. Louis are dependent on Mother Nature. When I was thinking about moving, I thought about having more control over a course in Atlanta than in St. Louis."

Another difference between the two courses, which Mancuso says are similar in prestige, is the workers. Mancuso says even though there are so many Hispanic workers in the industry, they're aren't many in St. Louis. There, he had Ethiopian staff members. In Atlanta, the staff is almost entirely Hispanic, which can create communications problems.

"I have a couple bilingual employees who help," Mancuso says. "I'm going to have to learn Spanish. Two superintendents and two assistants have been here four years,

"The call came out of the blue. I had no thoughts of going anywhere." - TONY MANCUSO

so cold that Bermudagrass is risky to have because it's susceptible to winterkill.

"So we used zoysia and overseeded all the roughs with turf-type tall fescue," he says. "There are very oppressive conditions in St. Louis. I have the highest admiration for the group growing grass in St. Louis. The saying goes, 'You can go from St. Louis to anywhere and be successful."

In comparison, many courses in Atlanta

and they speak pretty good 'Spanglish."

Mancuso inherited everybody on staff and kept them. He has a staff of 60 in the summer and 35 during the winter.

"This was the next step up for me, partly because it's a larger operation," he says, adding that his budget is \$2.5 million. "Right now, I'm not doing anything at the town club, but I could be taking on the landscaping responsibilities there."

things superintendents should consider when changing jobs

- 1. Changing jobs too often can look bad on a resume
- 2. If one has changed jobs often, justify the moves.
- 3. Don't take another job just because it pays more.
- 4. Factor in any cost of living change.
- 5. Look into the history and philosophy of the club/course.
- 6. Analyze the business side of the club/course.
- 7. Evaluate the staff, maintenance budget and equipment
- 8. Show energy and commitment to the club/course during interviews.
- 9. Look at the benefits offered.
- 10. Look at the relationship between you, the g.m., green chairman and members.

Source: GCN research

For Mancuso, the transition has been smooth because he has roots in the South, attending college and beginning his career

"In my career, I personally wanted to host a major tournament, and I did; but now with this job, most likely I will not," he says. "I'd like to do it again, but if I don't, I feel good about what I've done."

Public to private

Before Cohasset, Misiaszek had been at Shaker Hills - a 13-year-old, 7,100-yard course that features bentgrass wall to wall - for six years. He says the job was challenging because the staff pushed through 300 rounds a day and had double shotgun starts twice a week during the summer. Because of this, it was a challenge to get all the maintenance completed. However, Misiaszek enjoyed seeing new faces every day and dealing with one owner, which made for quick decisions.

"The job gave me the opportunity to be creative," he says. "However, the place was a factory. The amount of play was a disadvantage. There were some first-time golfers who did more damage to the course than those who golfed regularly. And the

negative side of having one owner is that if he decides to do something goofy, you're stuck with it."

The big difference between Shaker Hills and Cohasset is that Cohasset has more funds and more support from the membership, according to Misiaszek.

"At Shaker Hills, the budget was \$500,000, and with a budget of that size, in addition to the number of people coming through there daily, there weren't enough resources," he says. "At Cohasset, I have more time to work on the golf course."

At Cohasset, which generates between 19,000 and 20,000 rounds a year, the grass varieties include ryegrass, bluegrass, fescues and some bentgrass. And the soils are complex with 40 to 50 feet of peat bog. The budget to maintain the 6,200-yard 18-hole course is \$1 million.

"And the capital budget is much higher than when I was at Shaker Hills, where every equipment purchase had to be approved," Misiaszek says. "The amount of money I spent in 2004 at Cohasset on capital expenditures equaled that of what I spent the entire time I was at Shaker Hills.'

Conditioning the course at Cohasset also is different than at Shaker Hills. For example, Misiaszek has the equipment to mow greens below one-tenth of an inch.

"The course is hard and fast," he says. "We can take the threshold and push the floor. We have the money to implement proper IPM programs."

Cohasset's staff of 23 is larger than Shaker Hills, which staffs 18 during the summer. Cohasset had 12 full-time maintenance workers, which Misiaszek thought was unnecessary.

"I laid six of them off and kept six and rehired the rest of the crew, which are mostly Brazilian," he says.

Downsizing

One of the things Tipton looks forward to most at Eagle Ridge is renovating the old fairways and interseeding the new low-mow bluegrasses he used at Sutton Bay.

"I have had a lot of superintendent friends at other courses comment on how well the new low-mow blues perform," he says. "A lot of courses could benefit from making the transition, but I don't hear of many trying to accomplish it."

One difference with Eagle Ridge compared to Sutton Bay is that the course is located farther from the banks of the Missouri River. Because of this, Tipton has to use wells for irrigation water.



"The water is not as desirable as river water," he says. "I will be using a sulfur burner to treat the irrigation water to make it more usable. This should, in the long run, also correct some of the saline/sodic soil conditions at Eagle Ridge.'

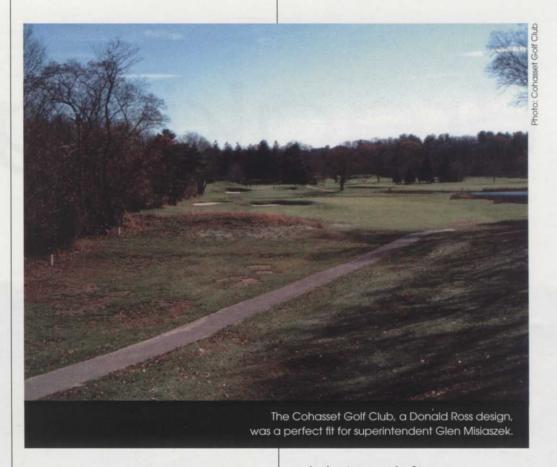
The biggest difference for Tipton with this new job is the proximity to the nearest town. The closest town to Sutton Bay was 30 miles away, so it was a 60-mile trip daily to the job and back. Tipton wanted to move to a less remote place and a stable community.

"Sutton Bay was a difficult course to maintain, partly because it was so remote and spread out," he says. "The distance from the clubhouse to the first hole is a mile and a half. The area we had to cover and the remoteness of the course was demanding. Getting supplies was difficult. There was no running into town for a spark plug. There was no room for error."

The budget at Sutton Bay was between \$250,000 and \$300,000 but should have been \$400,000, according to Tipton. Greens and tees were walk mowed, there was no local labor (it was all H2B workers), and there were 13 people on the crew.

"They ran a pretty tight ship," he says.

A sharp contrast to Sutton Bay - which has a lot of outside influences on how the course should be managed according to Tipton - Eagle Ridge is a semi-private



"Some places won't interview you if you move too much because they view it as a negative," Tipton says. "But when you're terminated, you have no choice. I planned on staying at Sutton Bay. But I've got myself into the niche of grow-ins. It justifies the moving."

"Some places won't interview you if you move too much because they view it as a negative." - BRYAN TIPTON

course and has only one owner.

Tipton says it's hard to say what his budget will be at Eagle Ridge because the course is expanding to 18 holes, but he thinks it will be about \$200,000. Additionally, he will be able to hire most of his staff locally.

"It was a dream to go to Sutton Bay, but sometimes it drains you," he says. "Eagle Ridge is more of a fit. I had other opportunities at other places, but I like to do more than daily maintenance. I always want to improve a course. Some of these courses aren't the most desirable, but they need improvement and can boost my resume."

Words of advice

Even though superintendents change jobs for the better most times, they should think about changing jobs too often.

Misiaszek says as long as superintendents can justify their move, there's nothing bad with changing jobs often. However, if one moves just for money and shows no commitment to a club, it will resonate negatively



on a resume. He also says that in the future, superintendents will change jobs more often because many of the older superintendents who stayed at clubs for 20 or 30 years are retiring.

Misiaszek recommends superintendents consider the cost of living when looking into another job.

'That can take an increase in pay and make it a decrease," he says.

Misiaszek also suggests looking at the history and philosophy of a club, as well

as the business end of it.

"You don't want to jump to a sinking ship," he says. "Make sure the club is progressive. Evaluate everything - the staff, the budget of the past five years, the maintenance facility, the equipment - all that goes into making life happier."

Misiaszek says a superintendent needs to show a prospective club that he has the energy and commitment to take a course to the next level instead of being just the next superintendent.

A superintendent also has to assess much more than salary and benefits, but those have to be in line, Mancuso says.

"I know many people who've changed jobs for more money, but they ended up with a lot more headaches," he says.

"I work for the members, and the minute you think you're so important that you're indispensable, you'll be in trouble," he adds. 'Three-quarters or more of the time jobs are lost is because of personality conflicts, and your ego gets the best of you and you think you're more important to the club than you are. Not many people are losing jobs because of agronomic problems. Superintendents have to get along with the club. Communication and relationships are everything. The longer I'm in this business, the more I cherish the relationships I have." GCN

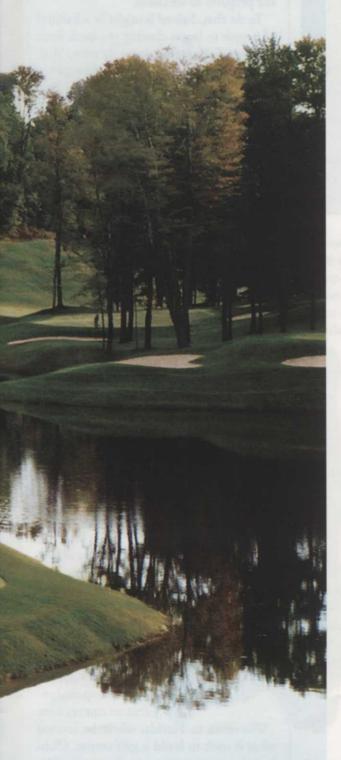
John Walsh is the editor of Golf Course News. He can be reached at jwalsh@gie.net.

Design case study

Breaking the



rules



AGAINST THE ODDS, AN AMATEUR DESIGNS, BUILDS AND OPENS AN AWARD-WINNING PUBLIC LAYOUT

"Butch"

by A. D. (could build a better course than this one.'

How many people have Horn thought and maybe even said that? Probably hundreds. But how many have actually done it? That's how Joe Salemi separated himself from the golfing crowd. Not only did he think it, he's actually made it happen in Streetsboro, Ohio. His Boulder Creek Golf Club opened in 2002 and was ranked eighth on Golf Digest magazine's list of top new courses in 2003 - the highest ranking a course designed and built by an amateur has ever achieved.

> "I didn't start playing golf until I graduated from The Ohio State University in 1977, but it didn't take long for me to see flaws in public courses," Salemi says. "I decided I could do it better.

> "I wouldn't recommend creating a golf course the way we did," he adds. "We defied all common sense, broke the rules and bucked the odds all the way. But I wouldn't change a thing, and the response has been beyond belief."

By the book

When Salemi says he built a course by the book, he means it literally. He did his homework and brought the experience and wisdom of design greats into the mix.

"I read everything I could by the past greats and the current greats," he says. "Dr. Alistair MacKenzie, who designed and built Augusta National, and A.W. Tillinghast had the greatest influence on Salemi when designing Boulder Creek.

"Tillinghast designed legendary courses such as Winged Foot, Baltusrol and Bethpage Black, and his book was really important to me," he adds. "But I took bits and pieces from all the best, Nicklaus, Fazio, Ross, Dve ...

While Tillinghast's "Course Beautiful," one of three volumes that comprise a collection of his notes and observations, was a guide, Salemi also felt a kinship with George Crump, who designed and built the Pine Valley Golf Club, since he, too, was an amateur and only built one course.

It starts with the land

It's a monumental challenge to build a golf course from scratch by oneself, Salemi says.

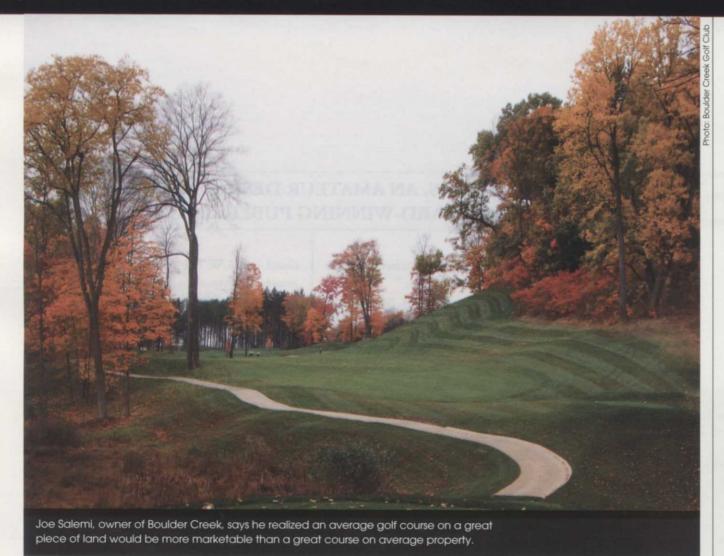
"Finding the right piece of land can't be emphasized enough," he says. "Early on, I recognized that an average golf course on a great piece of land would be more marketable than a great course on average property."

By the time he was ready to put his dream into motion, Salemi was a successful real-estate developer, and through his connections in real estate, received a lead on the land that would become Boulder Creek.

"A friend told me about an old farm, but at first glance I wasn't impressed," he says. "Then I walked

"We defied common sense, broke the rules and bucked the odds all the way. But, I wouldn't change a thing." - JOE SALEMI

design case study



to the back of the property, and the sight of mature trees, lakes and extreme elevation changes (as much as 100 feet in some places) sold me. I bought 100 acres right then and

added a second 100 in 1997.

The farm was for sale because deposits of sand and gravel that were to become a profit

center didn't measure up to the previous owner's standards. This was a lucky break for Salemi because it put the land on the market and because the sand, while not up to road-building standards, was up to the standards required to build top-quality

'We were able to put in our own screening plant, and all the greens were built with sand right from the property," he says.

By 1998, Salemi was ready to get to work. It was then that MacKenzie's book, "Routing a Golf Course," came into play.

Routing a course is like cutting a diamond - you only have one chance to do it perfectly," Salemi says. "You can't replace mature trees. Without that book, I would have made many more mistakes."

The new owner walked the land hundreds of times planning, routing and rerouting each hole in his mind. Salemi is a private pilot, so he was able to fly over the property several times to get a different perspective.

'One of the best investments I made was to hire an aerial mapping service to provide exceptionally accurate aerial photos and maps of the whole property," he says. "Working with the photos and maps, it became a chess game to work out all the moves we needed to make."

Luxury of time

It took Salemi and his hand-picked staff about four years to complete the project once they started work in earnest.

"A professional probably would have finished much sooner, but we had the luxury of taking our time," he says. "We made changes gradually because we wanted to preserve as much of the natural beauty of the property as we could."

To do that, Salemi brought in a handful of people to begin clearing the land. Each hole was first cleared down its center line, then the route was evaluated before taking more action. Each hole was cleared in a three-step process. For about nine months, Salemi and three helpers were the only ones pulling stumps and clearing trees.

"One of the reasons we went so slow was to protect the trees we wanted left," Salemi says. "You destroy more trees by running over their roots with heavy equipment than any other way. We wanted to avoid that."

Salemi grew up in the Cleveland area working for his family's excavating business, so he was comfortable moving dirt. When it came time to begin that process, he bought his own equipment and brought in specialists to run it. Again, luck was on his side. A

former golf course superintendent, who had moved into the building side of the business and became an accomplished shaper, was home from an assignment in the Middle East and heard about the new course. He stopped in to see if Salemi could use a shaper, however, Matt Loos didn't know what he

> when he signed on in 1999. Loos brought his brother, Chris, into the project a year later. Chris Loos, who like his brother is a graduate of Penn State University, had been a superintendent on courses from

was getting into

Wisconsin to Florida, where he learned what it took to build a golf course. Chris Loos is now the superintendent at Boulder Creek.

AT A GLANCE

Boulder Creek Golf Club

Location: Streetsboro, Ohio

Type: Public, daily fee

Project Start: 1998

Project Finish: 2002

Course Open: August 2002

Holes: 18

Par: 72

Yardage: 5,586 (gold tees) to

7,173 (black tees)

Slope: 119 (gold) to 140 (black)

Greens: G2 bentgrass

Fairways: PennTrio bentgrass mix

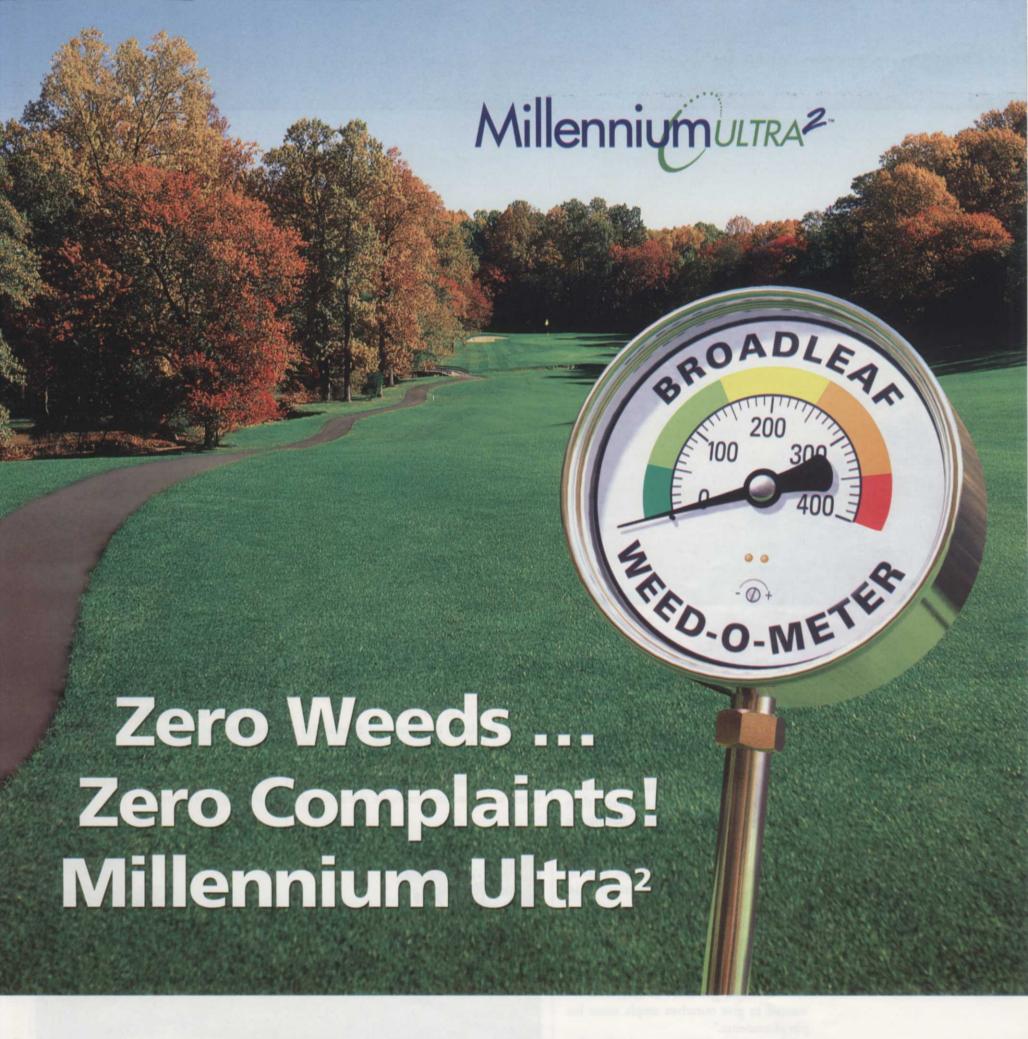
Owner, designer,

builder: Joe Salemi

Superintendent: Chris Loos

Head Pro: John Elser

Teaching Pro: Greg Wood



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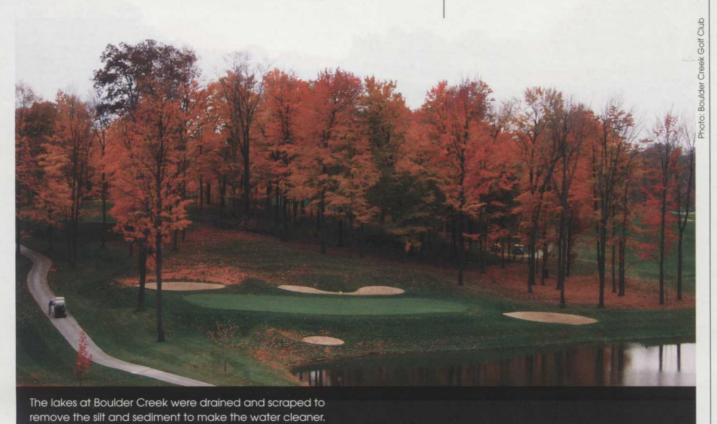
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design case study



Nothing typical

When Chris Loos started working on Boulder Creek there was a skid steer loader, a wheelbarrow, a shovel and not much else.

"There wasn't anything typical about this job," he says. "We did all the work ourselves, and it took us more than two years working almost 365 days a year.

"I have a better appreciation for what it takes to build a course now, and more than ever, I appreciate the benefit of having the superintendent involved as early in the process as possible," he adds.

Loos was involved in all the critical phases, but none more important than building the greens.

"The greens are the make-or-break area of the course," he says. "We intentionally made them bigger than usual, averaging 7,000 square feet. We knew, as a public course, they'd get a lot of traffic so we wanted to give ourselves ample room for pin placements."

The greens are G2 bentgrass developed at Penn State from samples taken at Augusta National in the 1980s – the same turf on The Masters' course today.

"We're really pleased with the greens," Loos says. "We've had more play than we expected, and they have held up very well to the traffic. They've been resistant to disease problems, and the G2 is doing well at keeping the *Poa* out, too."

The fairways, a PennTrio bentgrass mix

 Penncross, Penneagle and Pennlinks – also have held up well to the whims of golfers and the Ohio weather.

A stroke of luck

While the Loos brothers and Salemi did their work like craftsmen, they had their lucky streaks.

"The property has natural streams and lakes, so we wanted to make the most of them," Salemi recalls. "We drained the lakes and scraped the bottoms down to the hard clay base. Removing the silt and sediment made the water cleaner and better all around. And we also found that we had water beneath the property that allowed us to sink two wells that can provide up to 1,000 gallons a minute to our irrigation system."

However, not everything went that smoothly. During one of the lake projects, the crew hit quicksand, and in a matter of minutes, almost lost two sizeable machines before a third was able to tow them to safety.

"There were times, especially when working on the permits, dealing with regulatory agencies and the weather, that we were sure Murphy's Law was working at peak efficiency," Salemi says.

"Professionals would probably say we did a lot of things the wrong way, but now that it's over, I wouldn't change a thing," Salemi adds. "I wanted to really build a golf course. I financed the whole project with signature loans – although it helped that I owned the property – and we were careful in how we spent the money. We never cut any corners on anything that would impact the golf. This is a player's course, and anything that makes the game better is the highest priority." $\subseteq \subset \mathbb{N}$

A.D. "Butch" Horn is a free lance writer from McFarland, Wis. He can be reached at adhorn@charter.net.





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Turfgrass maintenance

The debate rages on

SOME SUPERINTENDENTS ADVOCATE ROTATING FUNGICIDES TO COMBAT RESISTANCE – ONE TURFGRASS PROFESSOR DOESN'T

DAVID WOLFF he debate about how to combat fungicide resistance continues. While a number of plant pathologists advocate rotating chemicals, some take the opposite position. As an example, three golf course superintendents in Orlando have never used the same material in consecutive applications. While admitting they haven't

scientifically documented the rationale for their programs, each says chemical rotation is what they were taught. And during their many years in the business, this principle has proven effective for them.

Fungicide use is an important strategy in an overall integrated program for turf disease control. To ensure current products remain available in the future, golf course superintendents should be aware of the need to use fungicides in ways that minimize the risk of resistance.

Fungicide resistance is defined as the emergence of a target pathogen population that isn't sufficiently sensitive to be controlled adequately by a fungicide that was effec-



tive previously. Once a pathogenic fungus develops resistance, a disease can get out of control quickly despite fungicide use, even with frequent applications at high rates.

There are two types of resistance:

• Single-step resistance is a sudden, marked decrease of effectiveness. Increasing the application rate doesn't matter because this resistance is stable and can last for many years. This occurs in benzimidazoles, strobilurins, dicarboximides and phenylamides.

• Multi-step resistance is less sudden, and there's a gradual decrease of sensitivity to the fungicide. This is less stable and occurs in products such as sterol inhibitors (DMIs).

And there's another event: cross-resistance, which occurs in chemically related fungicides that have the same biochemical mode of action such as strobilurins, sterol inhibitors and dicarboximides.

The development of resistance is a possibility for a number of turf fungicides, particularly for many of the newest systemic products that are popular because they can be used at low rates and have minimal environmental impact. However, they often have specific modes of action, attacking fungi at only one specific biochemical reaction among the tens of thousands of biochemical reactions that occur in a living fungus. Research and field experience conducted at the University of Kentucky College of Agriculture has shown fungicides with specific modes of action often are at risk to develop resistance.

Fungicide resistance is caused by a naturally occurring random mutation in the fungus that allows it to grow and reproduce in the presence of a fungicide. The mutation might result in the alteration of the biochemical target site in the plant, development of an alternative metabolic pathway, metabolic breakdown of the fungicide and exclusion or expulsion of the fungicide.

Other fungicide resistance elements are:

- The fungicide didn't cause the mutation it selects for pathogens with mutation;
- Many mutations don't have any effect
 some are lethal to the organism;
- It's estimated that one in every one billion spores or propagules is resistant to a fungicide:
- Resistance usually isn't noticed until about one in 50 pathogen individuals is resistant; and
- Resistance is a shift in the pathogen population.

It's critical to note most fungicides don't kill fungi. Continual use of a single fungicide family selects fungi that are resistant to it. In fact, the proportion of resistant individuals in the population increases.

Most failures of fungicides to control disease aren't due to resistance. Improper timing, inadequate rate, poor coverage and poor efficacy against some diseases and incompatibility are more likely explanations for control failures than development of fungicide resistance. Resistance occasionally occurs, and when it does, there's a sudden loss of disease control, and fungicide options for controlling diseases in the future might become limited.

Management strategies

The Fungicide Resistance Action Committee is a specialist technical group of CropLife International. Its purpose is to provide fungicide resistance management guidelines to prolong the effectiveness of at-risk fungicides and to limit crop or turf losses should resistance occur. The goal of FRAC is to identify existing and potential resistance problems. It collates information and distributes it to groups involved with fungicide research, distribution, registration and use. FRAC provides guidelines and advice on the use of fungicides to reduce the risk of developing resistance and to manage resistance should it occur. The organization recommends procedures for use in fungicide resistance studies and stimulates an open liaison and collaboration with universities, government agencies, advisors, extension workers, distributors and farmers.

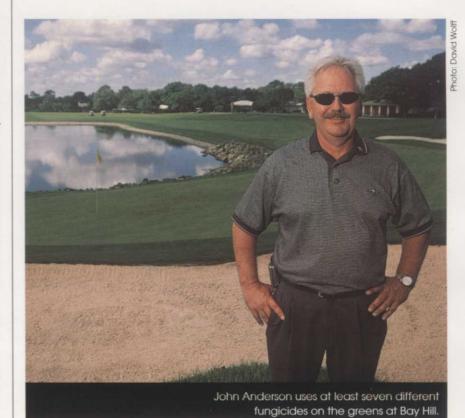
FRAC suggests the following strategies for resistance management.

1. Don't use the product in isolation. Rotate chemical families. Apply products as a mixture with one or more fungicides of a different type, or as one component in a rotation or alternation of different fungicide treatments.

2. Restrict the number of treatments applied per season and apply only when strictly necessary. Use other fungicides

subsequently. This approach, like rotation, reduces the total number of applications of the atrisk fungicide, and therefore, must slow down selection to some extent. It can also favor decline of resistant strains that have a fitness deficit. However the treatments, which are still applied consecutively, generally coincide with the most active stages of epidemics when selection pressures





are highest. Thus, any delay in resistance might not be proportional to the reduction in spray number. On the other hand, a substantial break in use at a time when the pathogen is still multiplying can allow a ben-

3. Maintain the manufacturer's recommended dose. In some cases, reduced rates are used where disease pressures are low. FRAC recommends doses must be maintained because they'll retain the built-in safety factor and secure the claimed levels of performance under a wide range of conditions and reducing the dose can enhance the development of resistance.

eficial resurgence of more sensitive forms.

4. Avoid eradicant use. One of the advantages of systemic fungicides is they can eradicate or cure infections. This property greatly assists their use on a threshold basis

where application is made only when an economically acceptable amount of disease already has appeared to prevent further spread. However, avoidance of systemic fungicide use in this way is recommended as an anti-resistance strategy.

5. Integrated disease management or integrated pest management. The integrated use of all types of coun-

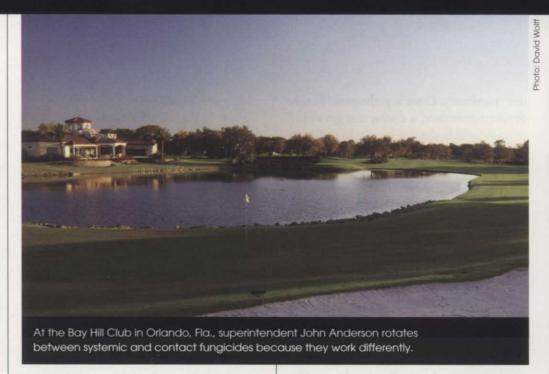
turfgrass maintenance

termeasures against disease is desirable on economic and environmental grounds and is a major strategy for avoiding or delaying fungicide resistance.

6. Chemical diversity. The availability of a number of different fungicides for the control of each major disease is highly beneficial environmentally and to overcome resistance problems. The continued use of one or few types of compounds throughout many years presents a much greater risk of side effects and favors resistance in the target organisms. Tank mix or alternate at-risk fungicides with appropriate fungicides.

Plant pathologists generally agree these factors also can reduce the risk of fungicide resistance:

- Keep spray equipment calibrated;
- Spray preventatively when possible;
- Use synergistic combinations. Synergism is the cooperative action of two agrochemicals such that the observed response



of a test organism to their joint application appears to be greater than the response predicted to occur by an appropriate reference model. The late Dr. Houston Couch of Virginia Tech University concludes various disease management strategies could significantly modify the inherent risk of fungicide resistance in the target pathogen. He also says risk could be lowered by rotation among fungicides with different biochemical modes of action or by using synergistic fungicide combinations.

Practicing rotation

Three superintendents in the Orlando, Fla., area always have rotated fungicides.

At Grand Cypress Golf Club, the fungicide program for the 48-hole facility includes 21to 28-day intervals from October to January. Superintendent Tom Alex rotates systemic and contact products, broad spectrums and pythium - whatever is necessary.

"I have never, ever given fungicides a chance for resistance because I'm always switching," he says. "I might use five to seven different products and never go with them in back-to-back applications. There are enough different materials out there that give decent disease control.'

Alex never sprays one product until it doesn't work anymore.

'Call it old school thinking, but in my opinion, why not keep four or five different fungicides in your arsenal that work versus using only one and everything eventually becomes resistant to it," he says. "Now I'm down to four choices. Use another one up, and I'm down to three choices. The heck with that. I want as many choices as I can get. I haven't seen any evidence that not rotating is a better option. I don't have any reason to believe what we're doing is not working."

John Anderson, superintendent at Arnold

Palmer's Bay Hill Club, also rotates between systemic (usually single site) and contact (usually multisite) products because they work in different ways.

"Systemics go into the plant and work very well to prevent disease," he says. "Contacts stick to the outside of the plant, and while they don't last very long, their base of activity is much broader. With a product with a narrow base of activity, it's more likely that resistance will develop. With a broadbased product that attacks disease from all directions, it's almost impossible to develop resistance. It's important to have both types of products in our rotation."

Anderson uses at least seven different fungicides on the TifEagle Bermudagrass greens.

"If there is a disease present, and we use the same material all the time, the pathogen builds a resistance against the fungicide," he says. "I haven't done my own scientific research, but this is what I've been taught, and it works."

Superintendent Rickey Craig of Shingle Creek Golf Club believes in preventative maintenance when it comes to fungicides. He closely monitors weather conditions because each soil-borne disease organism prefers a specific growing environment.

"I'm a minimalist as much as possible when it comes to fungicides," he says. "Of course I make adjustments when I see a problem, and I always alternate products. As one product is used, I bring another in for the next application. The goal is not to go back-to-back. The bottom line with fungicides - rotating material works, so that's why we do it." GCN

David Wolff is a freelance writer based in Watertown, Wis. He can be reached at dwolff@charter.net.

Dissenting opinion

ot everyone agrees rotating chemicals combats fungicide re- ${f N}$ sistance. Perhaps the most outspoken about this position is J.M. Vargas Jr., Ph.D., a professor in the plant pathology department at Michigan State University. Vargas conducted research on fungicide resistance management for dollar spot fungus (Sclerotinia homoeocarpa). The key points of the study were:

- · Rotating different fungicide chemistries doesn't prevent the dollar spot fungus from developing strains that are resistant to fungicides;
- · A strain of S. homoeocarpa can become resistant to more than one of the classes of fungicide chemistries;
- · Contact fungicides such as chlorothalonil don't prevent resistant strains from developing; and
- Incorporating contact fungicides into a dollar spot management program can reduce the number of site-specific fungicide applications throughout time and extend the life of the chosen site-specific fungicide.

"Golf course superintendents have been left with the notion that the different chemistries in the rotation are eliminating only the resistant strains and are not affecting the sensitive or wild-type strains," Vargas says in his report. "If fungicides are capable of 'getting rid of' resistant strains, what are they doing to the sensitive strains? The answer is they are both eliminating the sensitive strains of S. homoeocarpa from the population. This allows room for the multiresistant strains to develop and become dominant."

Vargas concludes his research stating: "Entomologists long ago discovered that rotating chemistries would not prevent resistance. Pathologists did not learn from them, and based on their latest recommendations of alternating different chemistries to prevent herbicide resistance, it appears that weed scientists have not learned from either group." GCN

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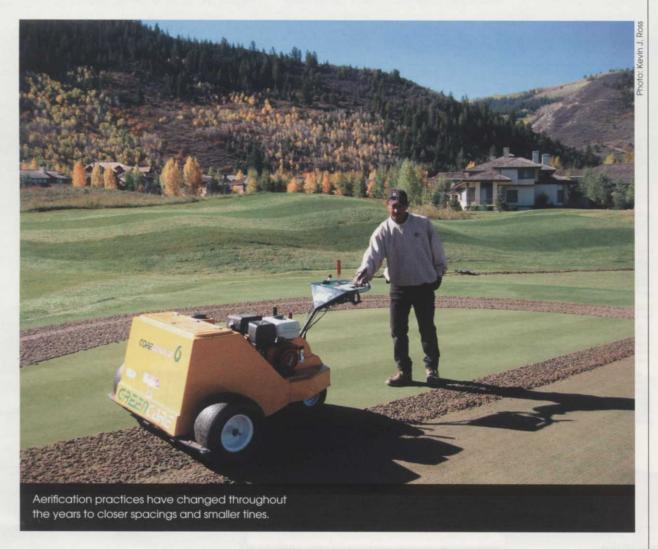
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Course maintenance



Today's greens management

IMPROVEMENTS CONTINUE, BUT WHERE DO THEY END?

KEVIN J. ROSS, CGCS

here's no debating about the fact that the green surfaces golfers are playing on today are the finest ever produced. Present greens management programs have evolved from years of experience and technological advances that produce an excellent product worldwide.

Not too long ago, during the 1970s, greens were being cut at three-sixteenths of an inch and producing speeds of 7 feet on the Stimpmeter.

Presently, some golf courses are cutting greens as low as one-tenth of an inch and producing daily Stimpmeter readings of 11 to 12 feet. Times have changed from cultivar selection to fertilization practices and almost everything in between.

Greens cultivar selection

Since the late 1950s, Penncross creeping bentgrass has dominated the bentgrass market. Even with the newer bentgrasses on the market, Penncross is still the world's No. 1 selling bentgrass – about 750,000 pounds are sold annually.

While Penncross still dominates the market, the newer superbents (such as the A and G series, L-93, SR1119, etc.) are the new popular choices for greens. These superbents offer finer texture, greater density, upright growth patterns and the ability to be cut at preferred heights of one-eighth of an inch and lower. These bents also offer tremendous rooting potential, which translates to a water-efficient plant. Unlike the past, when

Penncross was the sole option, superintendents now are faced with a difficult decision about what bentgrass to use.

Determining the best bentgrass cultivar for a particular area takes extensive research. But where should one start? The National Turfgrass Evaluation Program (www.ntep. org) might be the best starting point. This program evaluates all the major golf course turfgrass species. There are various sites throughout the United States (primarily universities) that conduct the testing.

However, one should be careful when evaluating NTEP testing results. For example, assume bentgrass A is the overall, top-ranked performer for a particular year. While a testing site such as Orono, Maine, might have it ranked fairly low, other sites might have it ranked much higher. So what's the concern? While the overall rankings are good, the real meat of the rankings should be looked at from a regional standpoint. The optimal way to decipher the rankings is to compare testing areas that match, or are similar to a course's climatic conditions. If a superintendent plans to grow bentgrass A in Springfield, N.J., then the performance of that particular cultivar in Orono, Maine, might be of less concern.

Possibly the best method for evaluating bentgrass cultivars is individual testing by a superintendent at his course. No data and observations can be better than testing under the exact growing conditions. For example, if one is faced with the decision to select a bentgrass for green surfaces before a reconstruction project, that person should consider developing a test green for evaluation. Many superintendents have done this successfully.

To do this, construct a test green including the top eight cultivars being considered. Then, throughout a 12-to-16-month period, watch these bents under your management practices and climatic conditions. As a result of this testing, select the bentgrass that would ultimately perform the best in your area and under your management programs. This is the ultimate way to evaluate what will perform best. This testing hinges on timing that requires forward thinking 12 to 18 months out. This can even be done in a new construction situation. There's easily enough time during the constructed and evaluated.

Construction

The greens that superintendents produce today are, in large part, a result of greens construction specifications that have been refined throughout the years and offer the ultimate in soils physics. The U.S. Golf Asso-

ciation continually reviews and improves its specifications for greens construction - not only from a scientific standpoint, but also from a cost standpoint. Current specifications are based on scientific laboratory testing that will ensure, with proper construction, a green that will perform for many years.

Along with the USGA-specified green, the California green has gained a lot of popularity during the past 10 years. Although this construction method had its early share of problems, many superintendents are reporting excellent performance with this method.

Superintendents should thank technology for producing excellent sand-particle sizing and root-zone blending. Golf course material suppliers presently have sophisticated sand screening and mixing machines at their disposal. These machines ensure the proper material will be produced and mixed for greens root zones. The increased popularity of the California green might be a result of the technological advances in sand screening machinery. The most critical part of the California green is the sand-particle sizing. With today's machinery, the particle-size specifications needed for the construction of a California green are much easier to obtain.

These two methods create debate among superintendents and academics. Regardless of which green method an individual prefers, both have their place in today's golf course construction world.

Irrigation

The old design of a common irrigation system that watered greens and surrounds isn't used anymore. This might be one of the biggest reasons for great greens quality and proper water management. Presently, most golf courses have a dedicated greens system that waters the green surface only. This offers the flexibility to water the green surface independently from the surrounds area, therefore, putting exactly the amount needed on the green. Irrigation companies also should be commended for developing efficient sprinkler heads and computerized controls that offer considerable flexibility.

Water management

Overwatering might have been the biggest mistake made when superintendents switched from managing soil push-up greens to managing sand-based USGA greens. Their past experiences with push-up greens, in which watering almost every night was the norm, didn't translate to sand-based greens. The perched water table theory of the USGA green ensures efficient water usage.

This table, along with independent watering systems, has changed the face of watering practices to more of a fill-the-glass approach. For many, this approach means irrigating to fill the root-zone cavity (the glass) to field capacity, plus an additional amount sometimes for flushing through positive drainage. Then, the turf is dried down the cavity water (drink the glass) nearly empty, and the cycle is repeated. This method of watering has produced excellent turfgrass and water conservation results. Many of the past failures of the USGA green have been directly related to overwatering. Now, through experience and irrigation design, these overwatering failures have been reduced drastically.

Cultural practices

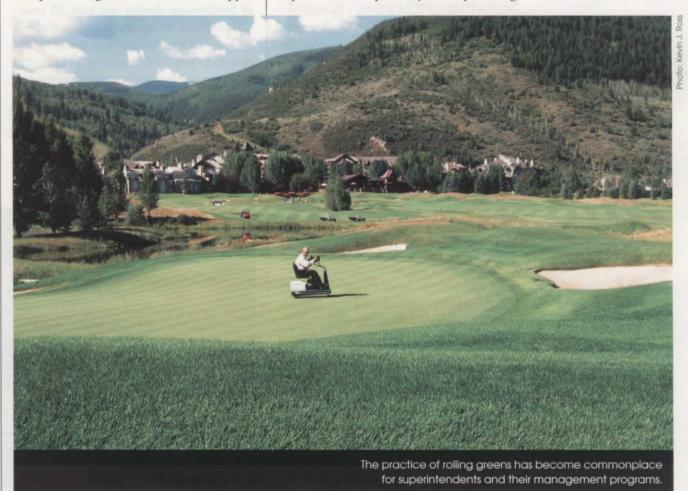
One benefit of the new superbents has been the development of equipment that will help manage them. Using aerification equipment, which produces tight spacings - as close as one inch by one inch - seems to be popular. Much more attention is being given to thatch and organic matter build-up than ever before. Many superintendents are basing their programs on a 15- to 20-percent surface area removal impacted theory - or using research conducted by Dr. Bob Carrow of the University of Georgia - which suggests a maximum of 4-percent organic matter be in the upper

2 inches of the green surface, to design their aerification programs.

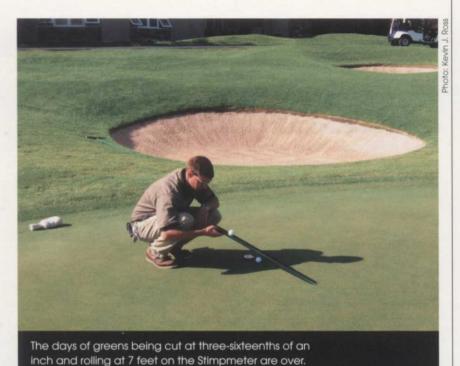
The development of true dethatching units also has been beneficial for managing the thatching potential of present day bentgrasses. These machines offer depths as deep as 1.5 inches and various blade widths from 1 to 3 millimeters. Many superintendents are performing dethatching and aerification operations at the same time. This can increase the SARI drastically and lower the thatch/organic matter percentage quickly.

Topdressing

Looking back to the three-sixteenths of an inch cutting heights of the 1970s, superintendents could count on one hand the number of times per season greens would be topdressed. That has changed. Lighter topdressing applied more frequently throughout the major portion of the growing season seems to be the standard. Many clubs are using fertilizer-type rotary spreaders with kiln-dried sand throughout the summer every two to three weeks. Some clubs are even using green-died sand for the light and frequent applications. The color of the sand blends into the turf surface so well that golfers can't tell the green has been topdressed. Along with these light dustings, superintendents probably are topdressing



course maintenance



more heavily than in the past. Credit should be given to material suppliers for producing spec topdressing sand, whether colored, dry or normal. There also is a fairly new product on the market: sand (topdressing) coated with fertilizer. Initial research shows positive results from this material when used in conjunction with aerification.

Mowing and green speed

It wasn't that long ago that three-sixteenths of an inch was the normal cutting height for greens. At most courses today, three-sixteenths of an inch might get someone a pink slip. Tees, approaches and some fairways are cut at this height. Today, some golf courses are cutting greens below a tenth of an inch. But how low can one go? The bottom is approaching rapidly.

There's no question the need for speed has brought these low heights, and speed is most likely here to stay. When determining the perfect speed, a variety of inputs should be considered - from green design to player's ability. The best way to determine a proper green speed might be to follow the model of Mike Morris, superintendent at Crystal Downs Country Club in Frankfort, Mich. He ran a two-year study using weather data, membership surveys, cultural practices and Stimpmeter readings. With these inputs, Morris was able to determine the optimum green speed range the membership desired and what he could deliver on a daily basis. Maybe the most important policy Morris and his club came up with was not to alter green-speed range. So no matter what the day, tournament or not, it's the same. This

eliminates, quite possibly, the biggest problem many superintendents do to themselves: Soup up the greens for the big club tournaments (13 feet) and then slow them back to reality a week later (10 feet). The floodgates for complaints have been opened now.

Fertilization practices

There are two big changes regarding analyzing greens fertilization. First, the total amount of nitrogen used per 1,000 square feet has declined dramatically throughout the past 30 years. "Turfgrass Science and Culture," the textbook written by James B. Beard in 1973, stated the nitrogen requirement for bentgrass should be 0.8-1.4 #N/M per growing month. Now, even Beard acknowledges that was too high. Today, some greens are being managed with as low as 1-2#N/M per year, while a new course grow-in might be as high as 6-12#N/M. Disregarding a grow-in situation, the nitrogen amounts have declined from Beard's first recommendations to the current 0.25-0.50#N/M range per growing month.

The second change is the popularity of foliar feeding. This might be the one practice that has led to the use of decreasing amounts of nitrogen. Spraying low amounts of nitrogen with the use of a solubles/liquids has become one of the most popular methods of fertilization during the past 10 years. This method, or spoon-feeding as it's been coined, isn't strictly limited to greens. Many courses have used this on tees, and fairways are becoming a popular spoon-feeding target, too. The ability to spray these materials more frequency while using extremely low rates benefits the health of the turfgrass. This

type of approach can't be accomplished with traditional granular fertilizers.

Seeding vs. sodding

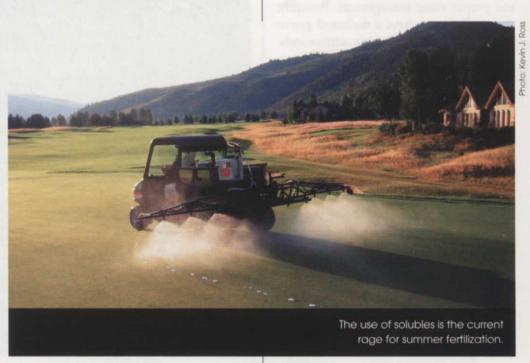
For years, seeding had been the preferred method for greens establishment, and sodding was taboo. But sodding has made major gains, which have been made primarily because of the ability of sod producers to grow quality sod and address the layering phenomenon. In the past, failures of sodded greens have been related mostly to an incompatible match of the root-zone mix with the sod medium. With proper laboratory testing to determine the compatible match of a root zone and the material the sod is grown on, the sod disasters of the past are pretty much over.

With sodding gaining more acceptance, the debate about whether courses should be sodded completely is heating up. Developers and owners can make money more quickly if courses are sodded entirely. Sodding probably won't displace seeding, but it seems to be an acceptable method and can no longer be labeled taboo.

The future

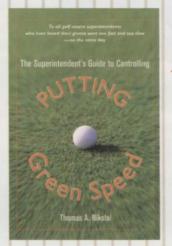
Are superintendents practicing the ultimate greens management? Maybe. Can the height of cut be lowered more? Not much. Years ago, Penncross was considered the ultimate, as was five-thirty-seconds of an inch and 10 feet on the Stimpmeter. Anything could be possible 25 years from now. GCN

Kevin J. Ross is director of golf course management at Country Club of the Rockies in Vail, Colo. He can be reached at kjross@vail.net.



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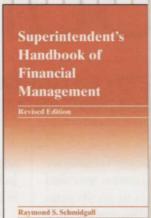
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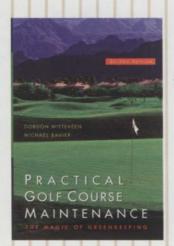
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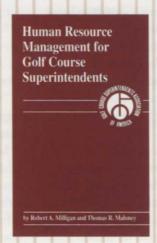


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Business management

More than discounts

FACILITIES OFFER VALUE TO ENTICE GOLFERS TO TRY AND INCREASE ROUNDS AND REVENUE

ROB

lay is down, yet more golf courses are being built. This situation has called for existing courses to go the extra THOMAS mile to attract customers. Discounting rates, offering extra amenities and implementing new marketing plans are a few ways courses are trying to accomplish that.

> According to Allen Anderson, director of marketing at Grand Geneva Resort in Lake Geneva, Wis., golfers travel as far as 90 miles to play the resort's two championship layouts - The Highlands and The Brute. Even with a slumping market, Anderson says rounds at the resort have increased throughout the years without the resort having to discount rates across the board.

> "Grand Geneva was designed and intended to be a premier course and a special experience," he says. "We have found if customers get conditioned to discounted rates, that's what the course becomes. Having said that, we're not insensitive to (economic) conditions."

> Packages and options are available for different times of day or days of the week at Grand Geneva. A tiered-rate system discounts play in the afternoon, after peak morning hours. "Sizzling Sundays" were an answer to lack of play on Sundays, which are turnover days at resorts. Grand Geneva's offer of \$119 for 36 holes is more than 50 percent cheaper than the normal rate. Golfers start on the Highlands course and make the turn as tee times permit on the Brute course.

> "It attracted golfers in droves," Anderson says of the promotion. "It was a huge success and continues to be.

> The Harbor Golf Club in Ashtabula, Ohio, doesn't offer packages, though two of the club's competitors, Maple Ridge Golf Course and Chapel Hills Golf Course, do. They offer a special that allows golfers to play 36 holes with a cart and lunch for \$35

and \$36, respectively. Harbor Golf Club's Joey Huang says specials will be considered in the future.

Huang is one of 12 former members of the Ashtabula Country Club who purchased the course this past winter, renamed it and opened it to the public. He thinks the Harbor Golf Club will stand out in the market for several reasons.

'The biggest difference is the condition of the course," he says. "We have the best greens in Ashtabula County. (Superintendent) Doug Schira does a fantastic job for us.

"We really want to provide a great golf experience," he adds. "We provide a great course to play for a public-course price."

Most of the seven courses Harbor Golf Club competes against offer 18 holes and a pro shop with snack bar. Two of them have a driving range. But the Harbor Golf Club offers a swimming pool, tennis courts and two driving ranges - one for woods and one for irons.

Additionally, the club offers three levels of membership - single, family and junior. Unlimited use of the driving range, pool and tennis courts will separate the club from others in the area, according to Huang.

StillWaters Golf Club in Dadeville, Ala., isn't discounting rates either. The club once housed 36 holes of golf but now maintains 18 holes for play. The open course, The Highlands, is a par-72 layout with undulating fairways and five sets of tees from which golfers can choose to play. Todd Rogers, StillWaters' general manager, says initial improvements were made by new owner Phillip Zettler in the spring of 2004 before the course reopened, but nothing was done specifically to attract more golfers.

"The reason we had to spend money initially on the course was because of the lack of funds spent before we took over," Rogers says. "The bunkers were trash, weeds had



taken over, etc. All we did was give it a quick facelift and then started playing golf."

The \$45 greens fees might deter some local play, but Rogers says StillWaters is looking to bring in players from surrounding areas such as Auburn and Montgomery.

"They might be a little high for the area, but we don't seem to attract the local crowd even at \$30," he says. "Most of our golfers are in the resort from out of town."



There's added value to the \$45 greens fee, according to Rogers. That cost includes unlimited golf, a cart to use throughout the stay, range balls and help from the head golf pro to select the right tees for play.

In addition to golf, StillWaters offers villas and guest suites for overnight stays. It also will work with golfers to customize golf packages that include meals and nearby recreational activities.

Marketing plans

Aside from attractive rates, marketing is another way to boost rounds. Word of mouth might go a long way for the Harbor Golf Club, but the new ownership is making its first move by aggressively advertising in local newspapers and on radio stations. As a private course, 7,000 rounds were played at the Ashtabula Country Club during 2004. Looking at a pair of competitors, Huang

says 18,000 to 22,000 rounds were played elsewhere. He believes a realistic goal for the Harbor Golf Club is to double the number of rounds from the previous year.

Grand Geneva spends significant marketing dollars at golf shows, as well as advertising on sports talk radio and golf-specific publications, according to Anderson. But its marketing goes one step further. Along with four other courses, Grand Geneva was

business management



Chaska Golf Course uses a promotional piece, which features people dressed as old-time golfers, to help boost play.

instrumental in creating the Geneva Lake Area Golf Council. Instead of looking at the opening of a new area course (Hawk's View) as a threat, the staff at Grand Geneva looked at it as an opportunity.

"We're not competing against each other as much as we are other destinations," Anderson says.

In addition to golf, Grand Geneva offers tennis, four restaurants, a spa and a water park resort.

In Lebanon, Ore., Mallard Creek's general manager Mark Tunstill is a member of local groups such as the chamber of commerce and tourism and economic development boards. Tunstill says he's better able to promote the course through these groups.

In Appleton, Wis., Chaska Golf Course was voted "Best of the Fox River Valley" for nine consecutive years and has a four-star rating in *Golf Digest's* "Places to Play" to lure golfers. But the course doesn't rest on just that, according to course manager Stephanie Jack. She involves the entire staff when making recommendations and brain-storming before the start of every season at an orientation.

"This day is spent with all course staff – grounds and golf shop – involved in the interchange of ideas and goal building for the season," Jack says. "There are many returning staff every year, but sometimes the best ideas come from our novices."

This thinking has led to a singles-only golf league and a week established to teach adults the game of golf. The adults program was initiated in the early 1980s and includes beginning and intermediate golfers.

About an hour away from Chaska are The Golf Courses of Lawsonia. This 36-hole club offers a links course and a woodlands course. Some weekday rates have been dis-

counted to locals. The club also uses off-site booking Web sites to attract more golfers, according to Gary Zimmerman, director of golf. Additionally, Lawsonia displays a booth at golf shows and has increased the overall advertising budget.

"Our competition is mainly from newer, upscale destination courses," Zimmerman says. "We are putting money back into both the courses, and we're adding new forward tee boxes to give the higher handicap player a more enjoyable round."

All are welcome

Reaching golfers, including potential players, of all ages is yet another way to help increase rounds and improve business. Regardless of handicap, Mallard Creek is focusing attention on existing and future golfers. Realizing that it's easier to retain current customers than to attract new ones, Tunstill helped generate a program that's enticing to both. Every Wednesday evening from 6 p.m. until 7:30 p.m., the course offers free golf clinics to anyone interested. The facility promotes this in-house, in the newspaper and at a local ice cream parlor for maximum exposure.

Mallard Creek focuses a great deal of attention on young golfers – knowing they're the future of the game. Kids ages 15 and younger play free when accompanied by a playing adult. Sometimes restrictions apply.

The course also features a certified junior program. Kids, ages 12 through 15, play for free anytime once they finish the weekend certification course.

Mallard Creek also is introducing the Duckie Course, which is a shortened kids course with rubber duckie tees. The front nine measures about 1,400 yards, and the back nine is about 1,500 yards.

Operational differences

The way a course operates also can influence business. With an emphasis on customer service, Jack says Chaska relies on crossover efforts between the clubhouse and maintenance staffs to provide golfers with a more enjoyable experience. Jack says she rewards the employees with higher pay.

"I have never paid minimum wage to staff as I am asking for more than minimum efforts from all who are employed at Chaska," she says. "In our area, we are considered leaders in the industry and continue to think outside the box or ahead of our competition to continue to be the best choice possible for those who love golf."

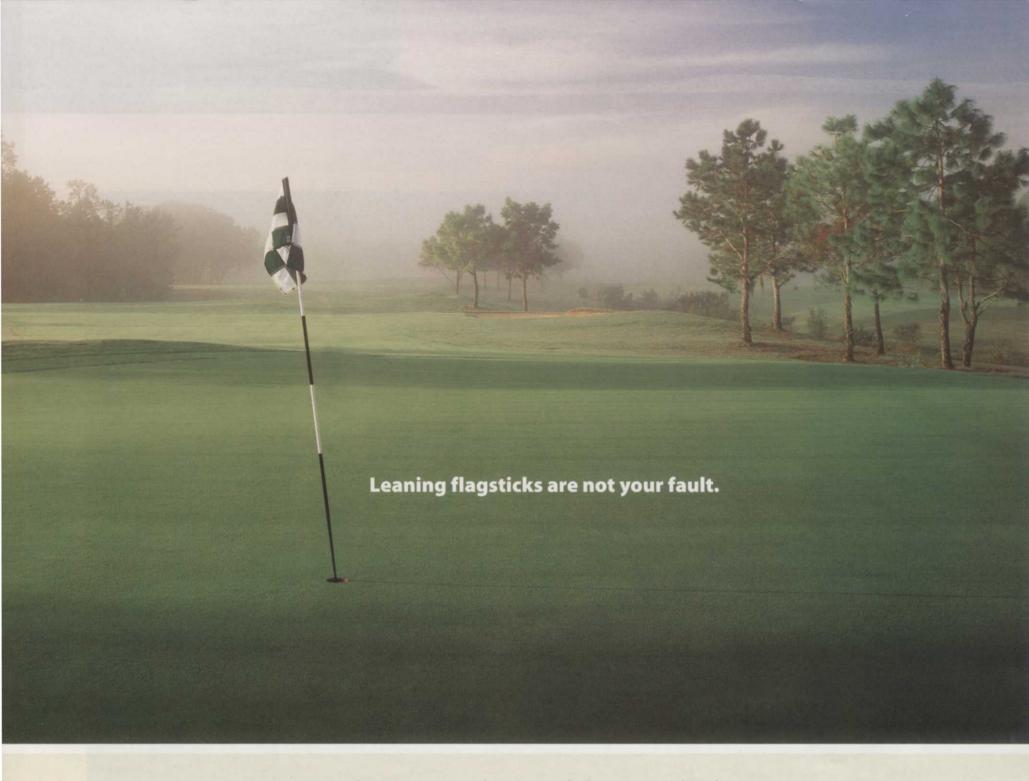
Because the Chaska superintendent is at the course prior to opening, he can unlock the gates and provide early golfers with cart keys to begin play. Golfers are given the option to play and pay at the turn. This help goes both ways. In return, the clubhouse staff helps with course maintenance, especially late in the season during the aerification process.

Whether it's course conditions, value for their dollar or added amenities, golfers tend to play where they're most comfortable, and courses are doing what it takes to attract them in a rather tight market. GCN

Rob Thomas is the associate editor of Golf Course News. He can be reached at rthomas@gie.net.

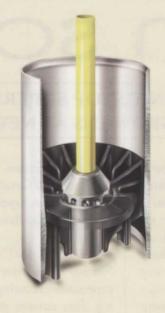


Dealing with fewer golfers on Sundays, Grand Geneva Resort implemented a 36-hole deal that allows golfers to save money and increasing the number of rounds they play



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Course management

Superintendent Gregg Gomes completed a grow-in at Antler Creek Golf Course in Peyton, Colo., which opened this past fall. It was Gomes' first grow-in project.



From scratch

INEXPERIENCE DOESN'T STOP SUPERINTENDENTS FROM OVERSEEING GROW-INS AT NEW COURSES

JOHN

eing a golf course superintendent at a new course can be more challenging than being a superintendent at WALSH a course that's been established. Hours are longer, and preparation is more involved. A superintendent doesn't have to have grow-in experience to get a job opening a new course, but successfully opening a new course is a significant accomplishment to put on a superintendent's resume. He's proven he can oversee a grow-in. Such is the case with John Johnson, superintendent at Winterstone Golf Course in Independence,

Mo.; Gregg Gomes, superintendent at Antler Creek Golf Course in Peyton, Colo.; and Mike Giddens, superintendent at the 9-hole First Tee of Lakeland YMCA in Florida.

Previous experience

Neither Gomes nor Giddens had previous experience executing a grow-in before taking their current positions. Johnson had some experience before taking the job at Winterstone, but not as the superintendent in charge. Before Johnson came to Winterstone, he was an assistant at Prairie

Highlands Golf Course in Olathe, Kan., for two years, and before that spent two years at Loch Lloyd Country Club in Belton, Mo.

"The move to Prairie Highlands was lateral, but I went there to get grow-in experience," Johnson says. "You work long hours on a grow-in. It's a full-time commitment. You have to think hard if you want to take a job like this. (At Winterstone), I worked 63 straight days for 12 to 14 hours a day. When you have the weather, you have to work."

Gomes previously worked at the Santa Ana Golf Club in Santa Ana Pueblo, N.M., and before that worked in Colorado for seven years. Although he never did a growin before Antler Creek, he felt he was very strong agronomically and had enough friends that had done grow-ins.

Before he was hired at First Tee, Giddens worked at the private, 18-hole Lone Palm Golf Club in Lakeland for three and a half years as an equipment operator. He was one of 20 guys on staff. While at Lone Palm, he also was in school earning a degree in turfgrass management. He graduated in December 2004 from Florida Southern College in Lakeland.

Giddens' connection to First Tee started with an inauguration event for the contributions made by the U.S. Golf Association to the First Tee of Lakeland YMCA. Golf course architect Steve Smyers and his wife, Sharon, also were involved with raising money for the golf course project.

"I was interested in volunteering and went to talk to Alice Collins, the president and c.e.o. of the YMCA for this region, and Steve and Sharon and I explained my situation to them," Giddens says. "My name was mentioned during the superintendents committee, which was looking for a superintendent for the facility. They asked me and said it was my job to lose."

There are three superintendents on the committee who were selected by the YMCA to oversee the facility.

Giddens says the biggest drawback for him was not having the years of experience as a superintendent, but he was fortunate to have the committee for help.

"I've never done a grow-in before," he says. "I was involved with a small grow-in of a nursery green at Lone Palm, but nothing to this extent. Not everyone gets to start at a new course from scratch and see it through all the way. However, some superintendents might have knowledge about what to do with a grow-in, even though they haven't done one."

Giddens completed an internship with John G. Walton Construction last summer that provided him with some grow-in experience.

First timer

The First Tee course was previously an 18hole par-3 course that closed about three years ago. The facility was built in 1965 and was owned by George Jenkins, founder of the Publix supermarket chain. Publix owns the land now, and the YMCA operates the facility. Giddens reports to an executive director of the YMCA.

The course, which also has a driving range, opened last month. It was scheduled to open November of last year, but was delayed because of the four hurricanes that blew through Florida. Grassing started in October 2004. Giddens says he took it day-by-day and week-by-week and wasn't pressed to meet a deadline.

With a budget of \$120,000, Giddens doesn't have much to work with and depends on volunteers and help from other area courses to maintain the First Tee.

"Right now, I have a volunteer staff of three, but I'm in the process of hiring one full-time person and two part-time workers," he says. "One of my temporary employees is a Champions Tour caddy.

"I was using equipment from other courses," he adds. "And the industry has stepped up. One superintendent on the committee talked to Toro, and the company let us use equipment that was part of a grow-in package. Toro will keep some of the equipment, and then I'll purchase some equipment from them. Additionally, some courses have donated older pieces of equipment."

The lighting and netting for the driving range also was donated.

The First Tee course features Jonesdwarf Bermudagrass on the greens and Celebration Bermudagrass on the fairways, tees and approaches. The course was sprigged except for the greens surrounds, which were sodded.

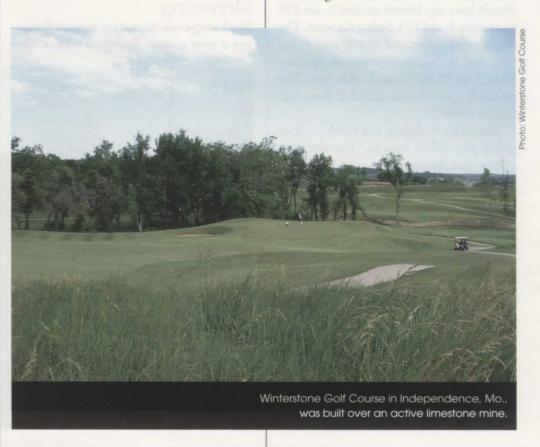
Smyers had used Jonesdwarf before but not Celebration," Giddens says. "But after speaking with the committee, they decided to use it. I've worked with 419 Bermudagrass in the past, and Celebration is darker in color compared to 419, and it holds its color throughout the year. There's a huge visual difference, and it's an aggressive grass."

Settled down

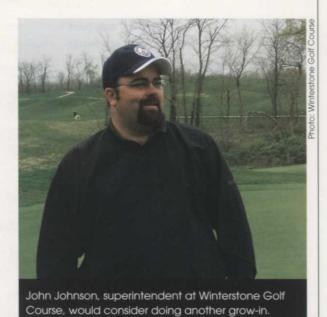
Winterstone, which opened in May 2003, was built over an active limestone mine that's 50 to 100 feet below the ground's surface. And every day at 3:15 p.m., the ground shakes because of the mining, which can cause problems.

"My first year had a lot of irrigation blowouts, but last year I didn't have any," Johnson says.

During the construction of a new course,



course management



a superintendent usually is brought in when irrigation heads are being installed, according to Johnson, who flagged all the heads at Winterstone.

"The last thing we did was seed greens in August," he says. "From September of '02 to May of '03, we were in grow-in mode," adding that the staff still prepared the course a bit after it opened.

Johnson also was in charge of hiring his entire staff. Even though this is his first head superintendent job, hiring wasn't new to him because he was involved in the hiring process at Prairie Highlands and Lock Lloyd.

The green fees for Winterstone, which doesn't have any houses around it, are \$59 on weekends and \$54 during the week. The public course generated 28,000 rounds last year, and management wants to generate 30,000 to 35,000 rounds this year. The course is open all year round if there isn't frost or snow.

"Even if it's 30 degrees and windy, we'll let golfers play if they want to," Johnson says.

Now that the course is up and running, Johnson says he would consider another job.

"I would pack up and move, but I wouldn't mind staying here," he says.

Western opening

The 18-hole daily fee Antler Creek course, which features Dominant Extreme bent-grass on the greens and a dwarf bluegrass/ fescue mix on the rest of the course, opened last year. The course had a soft opening Sept. 3, 2004, and the grand opening will be July 3 2005.

Gomes, who has four full-time people on staff and 20 part-time workers in the

summer, says this job is a step above his last one and he feels more pride in it. He says the main reason for the move was to do a grow-in.

"This course is like my baby," he says. Gomes' biggest challenge with the growin was that he did it without a pump station. He used gravity fed water and worked through that for five months. Because of the lack of pressure, the irrigation heads became clogged and stuck. Gomes says 70 to 80 pounds of pressure is needed and he only had 50 pounds. The 2,000 irrigation heads we're fixed manually, and the lines were flushed, but there wasn't enough pressure to completely flush lines so some sediment remained until the pump station was installed to provide the right amount of pressure.

Gomes' grow-in responsibilities might not stop there. He says another nine holes could be added to the course as early as October.

Gomes, who has worked on eight golf courses, was surprised by the climate similarities between New Mexico, where he used to work, and Colorado. In New Mexico, where he was at about 5,000 feet above sea level, the winds blew all the time. In Colorado, where he is about 7,000 feet above sea level, the wind blows just as hard.

"Sometimes I can't water because it's too windy," he says.

Gomes plans on being at Antler Creek for quite some time.

Marketing

Marketing is an important aspect of opening a new course. Superintendents have different involvement with the marketing of a course. Johnson says Winterstone had a soft opening with not much advertising because management didn't want to run 25,000 people through the course by the end of its first year.

"We relied on word of mouth and newspaper articles," he says. "Then last year, we went with ads on the radio and newspaper."

Giddens says he has no marketing responsibilities, which are mostly taken care of by Sharon Smyers.

Dos and don'ts

The main difference between working on a course that has been opened for some time compared to working at a new course is the construction mode, Johnson says.

"I realized how much work can get done because you're not waiting for golfers," he says.

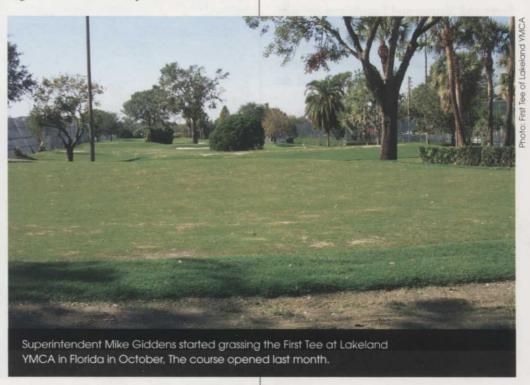
One important aspect for a superintendent working on a grow-in is hiring a good assistant, according to Johnson.

"We work a lot of hours," he says. "It will cause problems if you don't have a good assistant."

Gomes has another suggestion, whether a superintendent is going work on a growin or not.

"Never put yourself in situation where you can't be successful," he says. "I've never made a lateral move. Don't make lateral moves." GCN

John Walsh is the editor of Golf Course News. He can be reached at jwalsh@gie.net.



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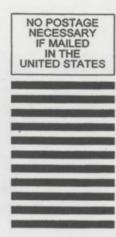
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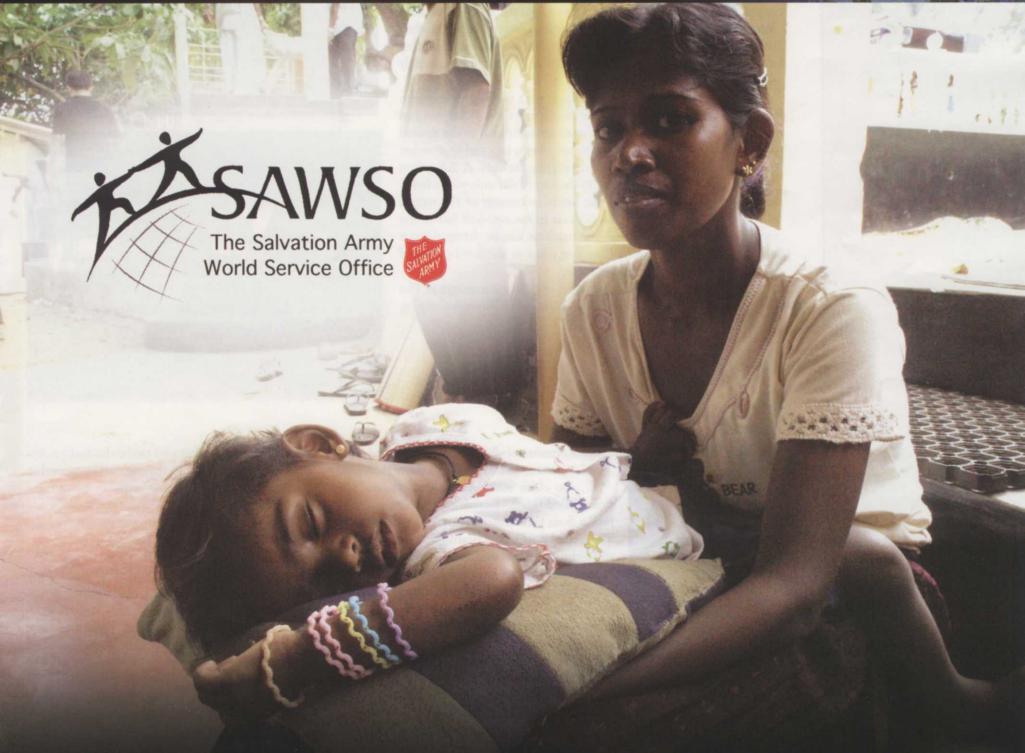
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equipment ideas



Terry Buchen, CGCS, MG, is president of Golf Agronomy International. He's a 35-year member of the GCSAA and can be reached at terrybuchen@earthlink.net.

Globetrotting consulting agronomist Terry Buchen visits many golf courses annually with his digital camera in-hand. He will share helpful ideas relating to maintenance equipment from the golf course superintendents he visits - as well as a few ideas of his own - with timely photos and captions that explore the changing world of golf course management.

travels TERRY with

The piece of equipment shown at the right originally was a 1988 Toro Greens Master 3000 triplex greens mower before the cutting units were removed. The self-contained leaf blower is attached to a 14-inch-by-9-inch metal platform and has angled steel plates on either side for added strength. The pieces were cut and welded together. The blower rests on rubber pieces that are about 2-inches thick to dampen the vibration from the air-cooled engine. To help support it, the platform also has diameter rods welded to it and bolted to the greens mower's frame. The engine is bolted to the metal platform. Quick disconnects on the metal framework platform are used to remove or install the leaf blower as required when servicing either machine. The cost to build the platform, including materials and labor, was \$1,290. The piece of equipment is solely used for blowing leaves and debris.

The leaf blower is moved up and down with the hydraulic system that was used to previously operate the cutting units. The mow and lift pedals are used to move the blower up and down to the desired level. The leaf blower is used mostly on greens, tees and approaches where it can be driven without damaging the turf. A 2.6-gallon portable gasoline can is attached to the rear of the unit with a lightweight frame to help balance the machine because of the weight of the leaf blower. The gas can is never below one-half full so the weight balance is maintained. The machine can be driven using a transport speed when going from one place to another because of its good front-to-back weight balance.

Norbert Lischka, master greenkeeper and course manager at The Hamburger Golf Club in Hamburg, Germany, and his greenkeeping team developed this idea.







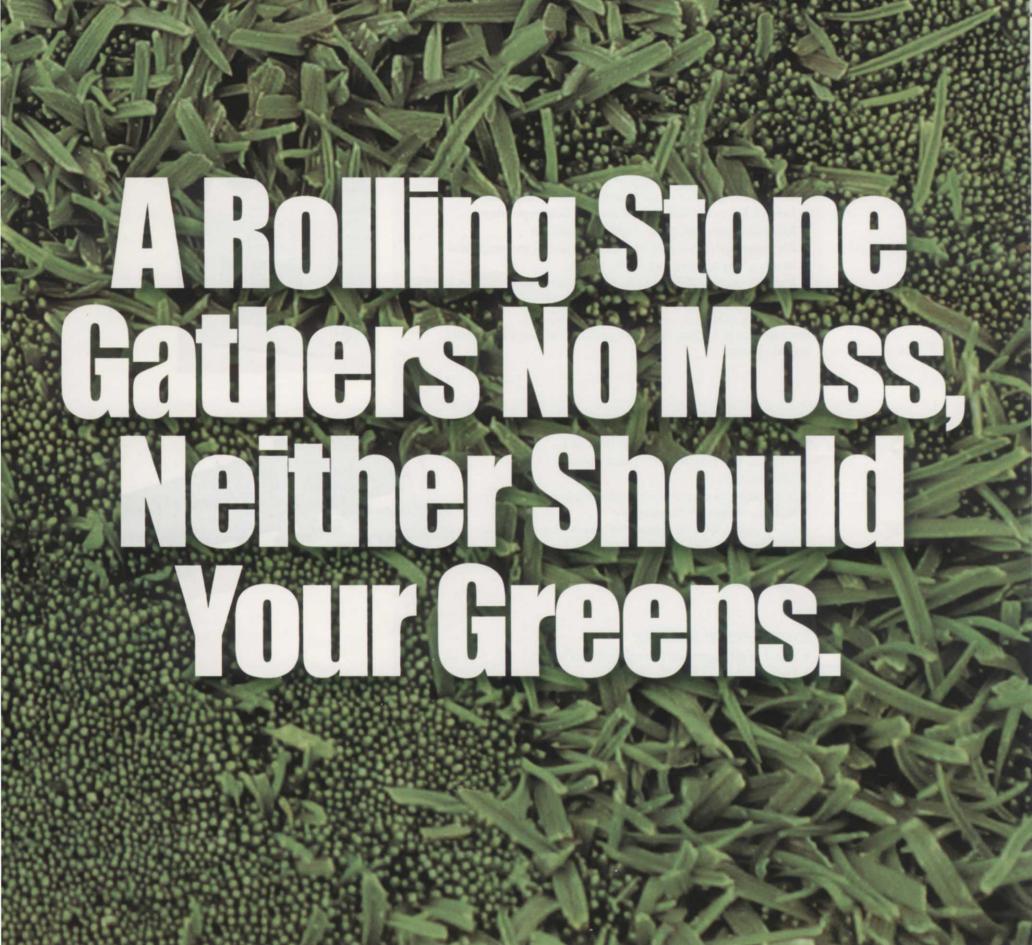
orrosion of wheel hubs can be caused when pressure washers or steam cleaners are used to clean maintenance equipment. The Bearing Buddy helps prevent moisture-forming corrosion from prematurely wearing out wheel hubs. The outer barrel of the Bearing Buddy is made of triple-chrome-plated steel, and the internal parts are made of stainless steel. The axle hub is filled with waterproof grease until the grease forces the Bearing Buddy piston outward about 1/8 of an inch. Because the piston is spring loaded, it exerts a slight 3-psi pressure against the grease, which maintains a slight pressure between the inside of the hub and the outside environment. When the hub is submerged, water can't enter the hub because of the pressure. An automatic pressure relief feature prevents grease overfills and overpressurization. The inner seal will be damaged without this feature. Grease can be added to the hub through an easily accessible grease fitting located in the center of the piston. The

lubricant level (and pressure) can be checked quickly and easily by pressing on the edge of the moveable piston. If the piston can be moved or rocked, it's properly filled with grease. A vinyl cover can be fitted over the Bearing Buddy to contain excess grease and to keep it off wheels and tires.

The Bearing Buddy can be used on the turning wheels of golf course maintenance equipment that turns a lot because the spring loading forces grease the other way when turning. It can't be used on any of the drive wheels. It can be used on any maintenance equipment wheel bearings that have dust covers.

The Bearing Buddy costs \$14.95 a pair, and a pair of vinyl covers cost about \$2. The total cost depends on the model and size.

Randall Pinckney, golf course manager at The Manor Country Club in Rockville, Md., and his mechanic's staff are using this with good results.



Cure and prevent putting green moss infestations with Junction* Fungicide/Bactericide.

Changes in turf maintenance practices have made moss encroachment one of the major problems that golf course superintendents face today.

Left unchecked, moss can out-compete desired turf species and literally choke the life out of your greens. But, there is a proven and simple answer to this prolific problem.

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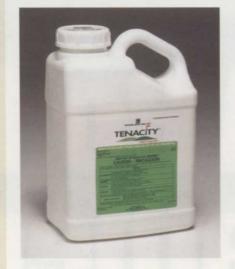


products — new

Tenacity 1.3ME fungicide

- Broad-spectrum, systemic
- Contains long-residual propiconazole
- Controls more than 15 turfgrass diseases including dollar spot, brown patch, anthracnose, snow mold and spring dead spot
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- Available in 2.5-gallon containers, packaged two per case Sipcam Agro USA

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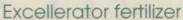


Sandmaster 2000 sand screener/blender

- Screens bunker sand for foreign materials
- Produces more consistent topdressing sand
- Sanitizes sand
- Mixes sand, seed or organic matter together
- Reduces viability of weed seeds
- Eliminates downtime waiting for sand to dry

Palmer Manufacturing and Supply

For more information, visit www.golfcoursenews/readerservice (number 212).



- Blend of micronutrients to enhance turf health
- Environmentally friendly
- Strengthens turf and enhances resiliency
- Ideal for high-traffic areas
- Increases tolerance against toxic elements
- Reduces heat stress
- Improves disease and insect resistance

Excell Minerals

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Pogo soil sensor

- Offers all-in-one capability for immediate sensing of moisture, salinity and temperature
- Measurements offer a way to manage greens better through optimized watering and fertilization
- Uses Hydra Probe sensing technology
- Can be used for random checking of greens or to evaluate trouble spots
- Uses Bluetooth wireless technology to transmit data to PDA or laptop for real-time readings
- · Designed for rugged outdoor use
- Volume discounts available

Stevens Water Monitoring Systems

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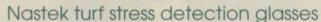




Hole cutter sharpener

- Designed to keep hole cutters sharp for clean hole edges
- Easy-to-grip handle
- Keeps scalloped or straight cutter shells sharp with a few swipes every day
- Sharpens the inside or outside of the hole cutter shell
- Saves time by keeping hole cutters sharp Standard Golf Co.

For more information, visit www.golfcoursenews/ readerservice (number 205).



- · Lens filter technology allows for early detection of disease, water or pest-related problems
- Lets user spot stressed turf close up or at a distance
- · Lenses block out green color range
- Any off color caused by disease, water or pests will stand out against the black background as glowing red, coral, pink or other hues
- Can detect infestation of Poa annua, weeds, mower cut quality and tree disease

BoMar Technologies

For more information, visit www.golfcoursenews/ readerservice (number 204).

Zeba soil amendment

- Improves turf establishment
- · Absorbs moisture and water soluble nutrients, then releases them as demanded by turf plant roots
- Results in more vigorous growth and a healthier
- · Environmentally safe way to control water and nutrient intake for optimal germination, growth and stand durability
- Shortens seed germination time, accelerates emergence, reduces dry spots and minimizes compaction
- Helps turf stands develop a deeper, stronger root structure to reduce watering needs, crowd out weeds and increase turf survival in hot, dry conditions
- Made from natural cornstarch
- Biodegradable, nontoxic and almost odorless
- Remains effective for as long as one year

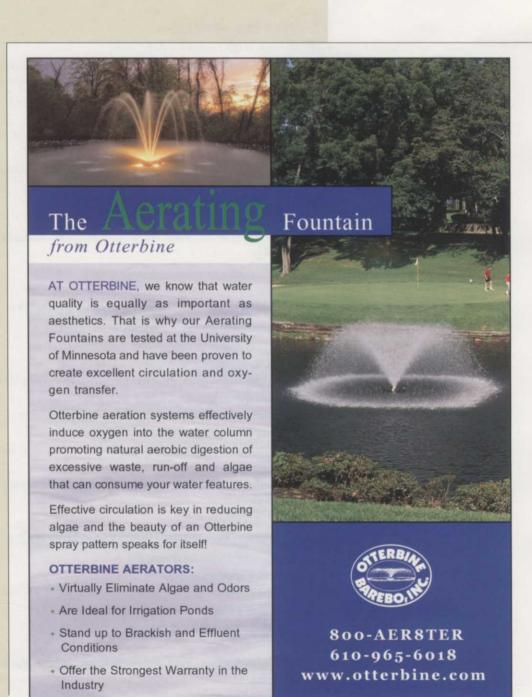
Absorbent Technologies

For more information, visit www.golfcoursenews/ readerservice (number 206).









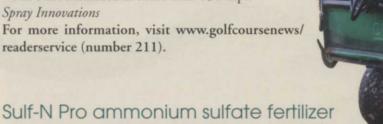
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products — new

Little Hercules mist sprayer/blower

- Compact fits into any utility vehicle
- Powder-coat frame has 10-year warranty, parts have three-year warranty
- 9.5-hp Kawasaki engine
- · Air blast measured at more than 150 mph

For more information, visit www.golfcoursenews/

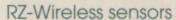




- Four grades available: granular, mini, micro and soluble
- · Granular, mini and micro grades are free-flowing, highly uniform and compatible with other turf fertilizers
- Soluble dissolves quickly into a solution that can be sprayed directly or injected through irrigation systems

Honeywell International

For more information, visit www.golfcoursenews/readerservice (number 207).



- Installation requires only a cup cutter
- As many as four sensors can be attached to each transmitter to allow monitoring of soil conditions at different depths
- Sensors can be set to monitor moisture, temperature or salinity, according to the needs of individual greens
- Multiple transmitters can be installed to monitor variations in a single green
- Real-time information from the root zone is sent directly to the user's computer
- Allows user to manage irrigation with precision Advanced Aeration Systems

For more information, visit www.golfcoursenews/readerservice (number 208).

Maintenance management system

- · Determines the quantity and location of assets
- Provides a central focus for planning and budgeting
- Uses GPS mapping technology
- Captures identifying information (serial number, tag ID's, etc.)
- Determines quantity (area, linear feet, etc.)
- · Monitors work load by person, work group or agency
- Compares processes, performance and expenditures across physical locations, time periods, personnel and assets

For more information, visit www.golfcoursenews/readerservice (number 209).

Alpha and T-1 creeping bentgrasses

- Ball marks and divots heal rapidly
- Strong dollar spot resistance
- Rich, green color
- Makes visible gains on Poa annua each year
- · For use on greens, tees and fairways

For more information, visit www.golfcoursenews/readerservice (number 210).







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is president of Flagstick LLC, a consulting firm that provides sales and marketing intelligence to green industry businesses. He can be reached at psjhawk@cox.net or 440-478-4763.

We would like to hear from you. Please post any comments you have about this column on our message board, which is at www.golfcoursenews. com/forums.

Don't try this at home

veryone has a secret guilty pleasure. For some, it's eating an entire container of Ben & Jerry's ice cream at midnight. For others, it's being obsessed with buying Pez dispensers on eBay. Hey, as long as it doesn't involve inappropriate relationships with farm animals, I'm all for anything that lets you relax and escape from the day-today grind.

My secret guilty pleasure is bad TV. Specifically, I admit to being a fan of truly awful shows such as "Jackass" on MTV. The monumentally stupid "Jackass" and various other stupid programs like it involve stupid and dangerous stunts performed by equally stupid people. If you're not familiar with this genre, just imagine the "stars" of the show allowing world-class jai alai players to repeatedly hurl oranges at 90 mph at their buttocks.

All of these inane shows have one thing in common. They always run a legal disclaimer at the beginning of each segment imploring that viewers don't try this at home. These warnings, crafted by the slimiest of entertainment lawyers, are somehow supposed to prevent teenagers from attempting the same idiocy in their backyards. Yeah, right. Have you ever met a teenager who would actually read and abide by a legal disclaimer?

Conditioning expectations

Anyway, I have a modest proposal along these lines based on a recent trip I took down to Pinehurst, N.C. I was there on behalf of "Superintendents' Video Magazine" to interview Paul Jett, CGCS, a very cool cat who's about to host his second U.S. Open at the resort's famed Course No. 2. The interview went great - mainly because Paul is the most mediasavvy turfhead in the known universe - but toward the end, he threw us a

Paul turned the tables and asked us them." So we kept the cameras rolling to record what he had to say.

His message was pretty simple and extremely forthright. I encourage you to go back and take another look at the April edition of "Superintendents' VideoMagazine" for his exact wording. This video would be an excellent thing to share with your facility's decision-makers or others who might have unreasonable expectations about conditioning.

Open season

That said, I will, as usual, take a wee bit of literary license and offer my embellished version of what Paul was trying to get through to the millions of morons, er ... I mean customers ... who will watch the Open next month:

- What you see on TV every June, Mr. or Ms. Golfer, is the product of years of planning, preparation and a gazillion dollars of additional maintenance spending. Do not, under any circumstances, equate this with reality.
- Those four days the host course is showcased on TV are like an elaborate David Copperfield illusion. We are levitating elephants and sawing pretty women in half here. We have created the world's largest agronomic magic trick, and you have been duped into thinking that a pachyderm can actually float in mid-air as effortlessly as a child's helium balloon.
- Please temper your expectations and try not to be so adamant that you should be getting a five-course gourmet meal when you're driving through a

Burger King at midnight. Unless you've dumped six figures into your club's initiation fee, just relax, shut up and enjoy the

- Never, ever listen to anything that a Tour player says about course conditions. These guys live in a traveling Disney World where everything is perfect and they haven't seen a patch of dead grass in a fairway since they were popping pimples in high school. When did these clowns become rock stars demanding that no brown M&M's be allowed in their dress-
- Ditto that for announcers particularly Johnny Miller. I find it ironic and terribly amusing that Johnny is now a self-proclaimed expert on putting sur-

faces. Unless I'm mistaken, the reason he "retired" from the Tour is because he couldn't make a *#@%#*! putt to save

- Any Tour player or announcer who so much as utters the words "Stimpmeter reading" on television should be required to personally conduct the weekly septic system flush-out of John Daly's Winnebago for the rest of the year.
- Golf is a game. The goal is to complete an obstacle course between point A and point B. Nobody said that what you encounter in between was supposed to be AstroTurf. That's what makes it fun. Quit blaming your lousy swing, bad luck and mental mistakes on the nice people who work so hard to provide you with a beautiful place to enjoy this damned silly pastime.

Ahhh, I feel so much better. Venting is always good for the soul.

Proposal

UNLESS YOU'VE DUMPED

SIX FIGURES INTO YOUR

CLUB'S INITIATION FEE,

JUST RELAX, SHUT UP AND

ENJOY THE GAME.

So, now that I've gotten that out of my system, I'll return to my original point. I modestly propose that - in all fairness - televised golf should adopt the same kind of disclaimer that "Jackass" runs before every episode. Whenever they

> start the broadcast or come back from a commercial, NBC, CBS or whoever should briefly air the following message:

> We hope you're enjoying the Viagra/

Cialis/Enzyte Sheboygan Classic. Please be warned that there isn't a snowball's chance in hell that you'll ever play on a course that looks like this. As President George Bush (No. 1) used to say, 'Naht gonna happen.' This is a made-for-TV event that in no way represents a typical golf experience (except if you're one of the jerks on the Tour or Bill Gates). Please get a clue, take a reality check, crack open another beer and lay off your local superintendent. In short, don't expect to try this at home.

P.S. - There is no such thing as 'grain' on most well-maintained greens, so just ignore the blithering blond bozo in the broadcast booth. Thanks and enjoy the show. GCN



Introducing New Broad Spectrum 26/36 Fungicide™ With A Dual Mode of Action

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