

January 2005

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GOLF

COURSE NEWS

Serving the Business of Golf Course Management

Meeting Golfers' EXPECTATIONS

IN THIS ISSUE:

Smart buying
Thatch management
Soil compaction

The 17th hole of the North Course at Firestone Country Club in Akron, Ohio

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34



38



46

Course management: feature

Meeting Golfers' EXPECTATIONS

- 34** Differently skilled players and budget constraints make meeting golfers' expectations challenging, no matter if it's a public course or private one.

Management companies: Q&A feature

- 30 THE RIGHT FIT**
Golf course superintendents need to match their career goals with a management structure that's suitable for them. *Golf Course News* interviews CourseCo's Ray Davies about management companies.

Equipment management: feature

- 38 SMART BUYING**
Supplier support, cost and usage help determine what equipment superintendents should purchase. Superintendents offer their recommendations. Also, one superintendent offers guidelines about whether to purchase or buy equipment.

Design solutions: feature

- 42 FROM GLUM TO GREEN**
Golf course developers transformed landfills and abandoned rock quarries into the last nine holes of a 27-hole golf course near Boston.

Course maintenance: features

- 46 COMBATING COMPACTION**
Soil compaction can alter the physical properties of turfgrass negatively. Superintendents are altering their aeration methods slightly to improve the health of turfgrass.
- 52 REACTING TO GOLFERS**
Changes in the game of golf are driving changes in the way superintendents maintain their courses.

Turfgrass maintenance: feature

- 58 CREATIVE CULTURAL PRACTICES**
Equipment and research are making thatch removal on bentgrass greens easier for superintendents.



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30



42



58

Departments:

- 8 EDITORIAL**
Movin' on up
- 10 LETTERS TO THE EDITOR**
- 13 RESOURCES**
Calendar of events
- 14 MARKET UPDATE**
Facility revenue and course development
- 16 INDUSTRY NEWS**
Association, course, supplier and personnel news
- 63 PRODUCTS**
New, biologicals, golf carts, flagsticks and netting
- 69 ADVERTISING INDEX**
- 70 FINAL ROUND**

Columnists:

- 26 MARKETING YOUR COURSE**
Jack Brennan: Entrepreneurial superintendent
- 27 DESIGN CONCEPTS**
Jeffrey D. Brauer: Praising course builders
- 28 ADVANCING THE GAME**
Jim McLoughlin: The state of golf consulting
- 29 HUMAN RESOURCES**
Robert A. Milligan, Ph.D.: Better leadership roles

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Some people seem to have the perception that all biological products are a little like snake oil or just "bugs in a jug". And frankly, some of them are. We've tested them. We know.

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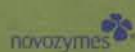
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USE READER SERVICE #13



John Walsh
Editor

Movin' on up

In a way, golf course superintendents can be grouped into two categories – those who choose to remain superintendents and those who want to move into management, which can be as the general manager of a club or as a regional superintendent who oversees and manages several courses.

Sitting in a room full of superintendents at the Carolinas Golf Course Superintendents Conference & Trade Show in Myrtle Beach, S.C. in November, I watched as only a few superintendents out a couple hundred raised their hands when Saeed Assadzandi, general manager of Champion Hills Country Club in Hendersonville, N.C., asked the group who wanted to be or thought about becoming a general manager some day. I was surprised. I thought I would have seen more hands.

The decision to move into management is not as great a leap as some superintendents might think. Superintendents and general managers are well-educated people. Superintendents also are managers of turfgrass, equipment, budgets and people. In fact, a major task for any superintendent is training and motivating people successfully – a skill also necessary for an effective general manager.

So, what does it take for a superintendent to seriously consider becoming a general manager? What management skills do they need to master?

Assadzandi, who's a certified golf course superintendent and who has made the transition to general manager, says there are several personal qualities a superintendent needs to have to become a successful general manager. They include:

- Possessing a desire to serve others;
- Being a problem-solver on all levels;
- Being a communicator;
- Seeing the big picture;
- Having a thorough understanding of country club management; and
- Having the ability to make people work together in harmony.

Many superintendents already have these desirable traits. However, Assadzandi says challenges superintendents might not be aware of include: every customer should be treated like an employee; a lack of continuity in management; and balancing time at work and home – it takes an understanding family to cope with the demanding job.

Does a superintendent need the complete package before making the move?

Assadzandi says most general managers never have been a golf professional, golf course superintendent or food-and-beverage director all before becoming a general manager. So it shouldn't scare superintendents who want to become general managers who haven't served in all of these positions.

Despite the challenges superintendents face to becoming general managers, there are traits they have that help qualify them for such a position. Those include:

- Being well educated;
- Managing a large budget and employees;
- Managing a facility's greatest asset; and
- Being results driven.

Another consideration is what type of club would suit superintendents best. That would be country clubs and golf clubs because they have a golf course that's a main component or driver of the club.

That said, one might wonder where to start. Assadzandi suggests:

- Joining the Club Managers Association of America because the more superintendents that join, the more the association will recognize superintendents;
- Taking advantage of CMAA's educational opportunities;
- Acquiring more knowledge of accounting principles; and
- Choosing a respected general manager as a mentor.

Having a mentor is an important aspect of making the transition from superintendent to general manager. Assadzandi says he had a mentor that he respects who helped him make the transition.

It's not for everybody, but if superintendents are thinking about this type of move, they should reflect on their skills and responsibilities, see how they can help advance their careers and find mentors who can help them make the transition.

When making this transition, it's also helpful to know some keys to success. Assadzandi offers a few: hire highly qualified people; let them do their jobs and don't micromanage them; inspect what you expect from them; and share the credit and take the blame.

It would improve golf if more superintendents became general managers. Besides, learning about what it takes to become a general manager might make superintendents better. GCN

John Walsh

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Serving the Business of Golf Course Management

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*source: USDA

Readers with comments are invited to write to:

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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.

Course design

I read the November issue cover to cover – great issue. It was as if the issue was written for our little “country” country club. Although at times I had to use “downsizing interpretation” because of our physical size and the size of our pocket book, the meat of the issue related to us, from the customer satisfaction article by Jack Brennan (page 23) to the maintenance program article by David Wolff (page 50).

The article about the future course (page 30) provided me with insight as to how we should address our course design to make it more challenging. Because we have stretched our length to the max, we need to consider narrowing our fairways to tighten them up and to reduce maintenance expenses. Because of our limited distance (6,200 yards) and our open fairways (many are more than 60-yards wide), we need to narrow the fairways to restrict the opportunity for the “hit-it-hard-and-spray-it golf,” yet provide the proper landing area and opportunity for the accurate golfer. We have limited acreage (less than 100 acres of course) and would like to go from fairway-length turfgrass directly to a rough that requires considerably less maintenance.

We’re a poor, small country club, but with the help of your publication, we’re continuing to move forward.

LOREN E. WILLIAMS
Board of directors
Bayou Oaks Country Club
Sulphur, La.

Redefining a purpose

Well done on covering the need for shorter courses (“Get shorty,” page 8, October issue) ... shorter in length ... shorter in time ... shorter in par. As an industry, we need to redefine our purpose so survival of this great game is assured. In short, it has to be fun, enjoyable, purposeful and timely. This has to be the center of our game development, and that development has to be carried out by more than daily-fee facilities. Country clubs need to participate in player development – at the junior levels at the very least ... and then there’s the women. The national programs are great for awareness, but local initiatives need to drive player development.

We’re in the recreation business, helping people have fun and recreate through golf.

As an aside, we have 18 regulation holes, a driving range, a nine-hole executive course and a nine-hole, par-3 course. With four different products, the recognition of our market demands become clearer each year.

RIC JEFFRIES

Co-owner and director of golf
RiverRidge Golf Complex
Eugene, Ore.

Future course dialogue

I am glad to see *Golf Course News* back up and running. I’m not sure the magazine knows how important it is to this business.

I’ve been in golf for more than 50 years and enjoyed participating in a few articles in the original GCN before it closed. “The future course” article (page 30 of the November issue) is excellent dialogue. However, there’s a component that’s still missing in dialogue about the future of the industry. I hope readers will take a few moments to read an article on the Web at www.golfmak.com/1000-more-golf-courses.htm.

Keep GCN healthy. I recommend it to all interests in the golf business.

MICHAEL A. KAHN
President
Golfmak
Bradenton, Fla.

Responding to McLoughlin

Thanks for the article about winning in a tight job market (page 29 of the September issue) by Jim McLoughlin. It has given me new insights as to what I might be doing wrong. I’ve had Mel Lucas (past president of the GCSAA) look at my resume several times, and he likes it, but after reading McLoughlin’s article, I know it’s lacking. I thank him for bringing my shortcomings to light. I will try some of his suggestions, especially the career Web site.

LOUIS P. BETTENCOURT, CGCS
Rolling Road Golf Club
Catonsville, Md.

I enjoy reading Jim McLoughlin’s articles in *Golf Course News*. I’m interested in taking the PGA/USGA Rules test as he advised, but I’m having trouble finding out how to go about doing it. Can you point me in the right direction?

JIM CURLEE, CGCS
Corpus Christi (Texas) Country Club

Editor’s note: McLoughlin’s response is below:

Before you take the Rules test, you’ll want/have to attend a PGA/USGA Rules workshop. There’s no option if you want to pass the test. Call the PGA or USGA (or check their Web sites) and ask for the Rules workshop schedule for 2005. These workshops are scheduled all throughout the country. Good luck.

GOLF COURSE NEWS

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Calendar of Events

Jan. 17-20

Annual Michigan Turfgrass Conference
Holiday Inn South
Lansing, Mich.
Call 517-321-1660 or visit
www.michiganturfgrass.org.

Jan. 17-20

Turfgrass Council of North Carolina's 43rd Annual Turfgrass Conference and Show
Adam's Mark Hotel
and Grand Pavilion
Winston-Salem, N.C.
Call 910-695-1333 or visit
www.ncturfgrass.org.

Jan. 18-20

2005 Midwest Turf Expo
Indiana Convention Center
Indianapolis
Call 765-494-8039 or visit
www.agry.purdue.edu/turf.

Jan. 19-21

2005 Mid-Am Horticultural Trade Show
Lakeside Center at McCormick Place
Chicago
Call 847-526-2010 or visit
www.midam.org.

Jan. 26

Florida Turfgrass Association's Winter Turf Conference
Jacksonville (Fla.) Duval
County Extension
Call 800-882-6721 or visit www.ftga.org.

Jan. 27

Northeastern Pennsylvania Turf Conference and Trade Show
The Woodlands Inn and Resort
Wilkes-Barre, Pa.
Call 814-238-2402 or visit
www.paturf.org.

Jan. 31 - Feb. 2

2005 Iowa Turfgrass Conference and Trade Show
Polk County Convention Complex
Des Moines, Iowa
Call 800-605-0420 or visit
www.iowaturfgrass.org.

Feb. 1

Turfgrass Advocacy 2005 – New York State Turfgrass Association's Lobby Day
Empire State Plaza
Albany, N.Y.
Call 800-873-8873 or visit
www.nysta.org.

Feb. 1

Florida Turfgrass Association's Winter Turf Conference
University of Florida/
PJC Milton Campus
Call 800-882-6721 or visit www.ftga.org.

Feb. 2-4

Turfgrass Producers International's Midwinter Conference
Hilton Cancun (Mexico)
Beach Resort
Call 800-405-8873 or visit
www.turfgrassod.org.

Feb. 7-12

Golf Industry Show and GCSAA Education Conference
Orange Country Convention Center
Orlando, Fla.
Call 800-472-7878 or visit
www.golfindustryshow.com.

Feb. 15-18

The First Tee 7th Annual Meeting
World Golf Village
St. Augustine, Fla.
Call 904-940-4300 or visit
www.thefirsttee.org.

Feb. 27 - March 2

Western Canada Turfgrass Association's 42nd Annual Conference and Show
Penticton (B.C.) Trade
& Convention Centre
Call 604-467-2564 or visit
www.wctaturf.com.

Feb. 28

New York State Turfgrass Association's Southeast Regional Conference
Hilton Tarrytown (N.Y.)
Call 800-873-8873 or visit
www.nysta.org.

Feb. 28 - March 2

Western Pennsylvania Turf Conference and Trade Show
Greater Pittsburgh ExpoMart
& Radisson Hotel
Monroeville, Pa.
Call 814-238-2402 or visit www.paturf.org.

March 2-3

Michigan Green Industry Association's 17th Annual Trade Show & Convention
Novi (Mich.) Expo Center
Call 800-354-6352 or visit
www.landscape.org.

March 7

New York State Turfgrass Association's Western Regional Conference
Buffalo/Niagra Marriott
Amherst, N.Y.
Call 800-873-8873 or visit
www.nysta.org.

March 7-10

New England Regional Turfgrass Conference & Show
Rhode Island Convention Center
Providence, R.I.
Call 401-848-0004 or visit
www.nertf.org.

March 16-17

Reinders 17th Turf & Irrigation Conference
Waukesha (Wis.) Expo Center
Call 800-785-3301 or visit
www.reinders.com.

March 23

LANDSEXPo
Texas Station
Las Vegas
Call 877-964-6222 or visit
www.landsexpo.com.

May 2-3

59th Annual Southeastern Turfgrass Conference
University of Georgia Tifton (Ga.)
Campus Conference Center
at the Rural Development Center
Call 229-386-3416 or visit
www.ugatiftonconference.org.

July 16-18

Texas Turfgrass Association's Summer Institute
Barton Creek Resort
Austin, Texas
Call 979-690-2201 or visit
www.texasturf.com. GCN

Contact John Walsh, editor, at
jwalsh@gie.net or 800-456-0707 to
submit conference information.

Performance and growth

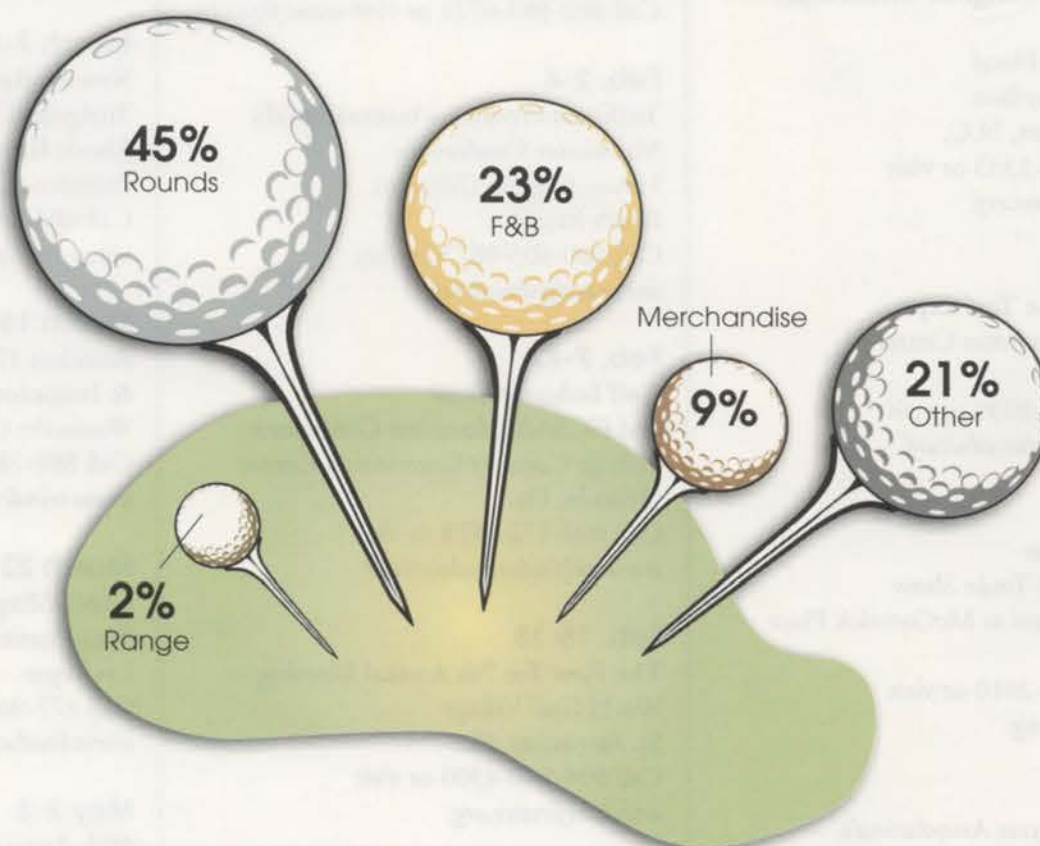
The revenue information below is derived from private regulation 18-hole clubs with total revenue less than \$3 million. The 65 clubs that responded are located throughout 27 states, including Texas, California, Virginia, Florida, Alabama, North Carolina and New Jersey.

The information is part of the Operating & Financial Performance Profiles of 18-hole Golf Facilities in the U.S., the 2004 edition published by the Nation Golf Foundation in November. At the bottom of the page is an update of course development. GCN

Private mid-range U.S. revenues

Rounds revenue	\$ 837,250
Food-and-beverage revenue ..	414,570
Merchandise revenue	156,010
Practice range revenue	34,500
Other revenue	378,150
Total Revenue	\$ 1,820,480

Source: National Golf Foundation



Development summary report

Type	Proposed			In Planning			Under Construction*			Completed*		
	9-hole	18-hole	Total	9-hole	18-hole	Total	9-hole	18-hole	Total	9-hole	18-hole	Total
New Facilities												
Daily Fee	36	145	181	47	220	267	52	126	178	38	53	91
Municipal	11	32	43	10	30	40	10	15	25	3	12	15
Private	1	18	19	11	54	65	13	65	78	4	35	39
Total	48	195	243	68	304	372	75	206	281	45	100	145
Additions												
Daily Fee	24	15	39	60	6	66	87	14	101	31	0	31
Municipal	9	1	10	9	1	10	8	0	8	4	0	4
Private	9	2	11	5	7	12	20	5	25	19	1	20
Total	42	18	60	74	14	88	115	19	134	54	1	55
Grand Total	90	213	303	142	318	460	190	225	415	99	101	200

* Figures do not include courses classified as reconstructions; Source: National Golf Foundation; as of 12/20/2004

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fairways leading to lower overall turf quality, reduced turf density, bare spots and poor playing conditions.

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Without Growth Regulation.*

For more information on new Emblem and Cleary's **Solutions Programs**, visit our web site at www.clearychemical.com



Count on Cleary

Industry news

Revolver receives revised labeling

Montvale, N.J. - New uses for Bayer Environmental Science's Revolver herbicide were approved by the Environmental Protection Agency. They include

REVOLVER use on additional varieties of zoysiagrass and Bermudagrass and new grasses controlled by the selective, post-emergence herbicide.

New grasses controlled by Revolver also were added to the label, including doveweed, Carolina false dandelion and little barley. Goosegrass also was added to the list of weeds Revolver controls in Bermudagrass greens, tees and collars.

Additionally, recommendations to avoid tracking or movement after application to adjacent sensitive grasses were added to the label. They include:

- Allow a buffer zone between sensitive grasses and the treated area;
- Allow the product to dry on the leaf surface prior to permitting traffic on the treated area;
- Avoid application when heavy rain is imminent or when the soil is saturated; and
- Do not irrigate immediately after application.

26GT labeled for anthracnose

Montvale, N.J. - Bayer Environmental Science received supplemental registration from the Environmental Protection Agency, adding the suppression of anthracnose to the 26GT fungicide label.

The supplemental label states the product may be applied as a foliar spray at the rate of 4 to 8 ounces per 1,000 square feet. Used as a preventive treatment every 14 days, 26GT will provide suppression during periods of anthracnose pressure.

A foliar blight that occurs under periods of heat and water stress, anthracnose is most severe on annual bluegrass (*Poa annua*), but it also occurs on Kentucky bluegrass, creeping bentgrass and other cool-season grasses. Turfgrass affected with anthracnose first turns yellow and then dies. Individual leaf blades fade from dark

green to light green and then to yellow.

26GT fungicide is a broad-spectrum product registered for control of brown patch, dollar spot and a variety of other destructive turfgrass diseases. 26GT provides residual disease control and disease knockdown.

The supplemental 26GT label recommends mixing the product with Compass or Chipco Signature fungicides for complete anthracnose control.

Western Golf adds contracts

Santa Ana, Calif. - Western Golf Properties added four management contracts to its portfolio of managed courses. In addition to its most recent management contracts of Bickford Ranch and Teton Reserve, the 19-year-old company added Blackstone Golf & Country Club and Heritage Todd Creek in Colorado, Borrego Springs Resort in California and Heritage Shores in Delaware to its portfolio.

The company began 2004 with seven clubs under management and attributes its most recent success to its attentive management style.

"Our rate of growth has been especially encouraging and a testament to how we manage," says president and c.e.o. Bobby Heath. "We have always made it a priority to provide the highest level of hands-on service to our select portfolio of management clients and continue to add resources to ensure that standard is exceeded."

Styx Capital unveils golf club leasing

Austin, Texas - Styx Capital introduced residual lease financing to the golf business through its premium golf-club rental program. It allows course owners and head professionals to provide a variety of the latest golf clubs as rental sets. This can take the headache out of managing rental inventory, enhance revenue and provide a competitive advantage.

"We adapted the residual lease financing approach that worked well in the computer industry and developed a turnkey program for pro shops and golf course facilities," says Jim Williams, c.e.o. of Styx Capital. "Whether a private club, daily-fee or resort course, our leasing program ensures that members and guests always have access to the latest golf club technol-

ogy at a reasonable rate."

The program eliminates the expense for golf courses when purchasing golf clubs for rental use, and it's flexible enough to adapt at any time. The company will replace all outdated inventory or add it to a selection of sets for a monthly price, or courses can receive cash by selling inventories to the company and leasing them back.

Turfgrass council renames award

State College, Pa. - At its annual membership meeting in November, the Pennsylvania Turfgrass Council renamed its Distinguished Service Award to honor George Hamilton, a professor and researcher of turfgrass management at Penn State. Hamilton died this past summer from cancer.

The newly named Dr. George Hamilton Distinguished Service Award will be presented for the first time in 2005.



"The PTC Board unanimously voted to

change the name of the award as a way to honor George for his unfailing support for PTC's mission to advance the science of turfgrass management," says council president Jerred Golden.

Council celebrates anniversary

State College, Pa. - The Pennsylvania Turfgrass Council celebrated the 75th anniversary of Penn State's Turfgrass Research and Education program during the annual Penn State Golf Turf Conference in November. Al Turgeon, professor of turfgrass management at Penn State, gave an overview of the program, its successes and progress.

Newly elected PTC board member Matt Shaffer from Merion Golf Club in Ardmore, Pa., thanked the College of Agricultural Sciences and those involved in the research for the contribution they have made to the golf industry. Shaffer expressed appreciation for the influence Penn State's turf-industry research has had on the development and management of turf on athletic fields and commercial and residential lawns.

State representatives Kerry A. Benninghoff and Lynn B. Herman presented a citation from the Pennsylvania

House of Representatives recognizing the anniversary and commending Penn State's research and education program.

American Leisure, Greenwich Golf to bridge industries

New City, N.Y. - American Leisure Corp. and Greenwich Golf Group partnered to bridge the gap between the golf and wellness industries. American Leisure owns, manages and provides consulting services to spas, fitness centers and lifestyle facilities in a variety of environments. Greenwich Golf Group is a valuation, consulting, acquisition and development company specializing in golf-related properties.

"The combination of golf, spas and state-of-the-art fitness centers will provide families with a one-stop lifestyle utopia," says Will Mraz, president of Greenwich. "While there are plenty of challenging 18-hole golf courses through-

out the country, our hotel and resort golf courses will step up with higher degrees of landscaping, settings, luxury clubhouses and dining facilities. Even the semiprivate and daily fee courses will treat golfers as 'members for a day' by offering more services than what's typically found at private clubs."



ity to cultivate relationships with current and potential donors, as well as communicate the importance of the work conducted by the institute.

Other members of the advisory council include:

Tom Crow, founder of Cobra Golf and a retired trustee for the institute; Dana Garmany, chairman and c.e.o. of Troon Golf; R.D. Hubbard, owner of Bighorn Golf Club in Palm Desert, Calif.; Paul C. Kanavos, chairman and c.e.o. of Flag Luxury Properties; Vernon A. Kelly Jr., president of PGA Tour Golf Course Properties; Owen G. Larkin, president of the Vineyard Golf Club in Edgartown, Mass.; Jamie Ortiz-Patiño, owner of Valderrama Golf Club in Sotogrande, Spain; H. Thomas Webb III, senior vice president of residential development for Crescent Resources; and Frank Weed, c.o.o. of Medallist Developments.



ASGCA to join Golf Industry Show

Lawrence, Kan. - The signing of the American Society of Golf Course Architects complements the participation of various other allied golf associations, including the Golf Course Superintendents Association of America, the National Golf Course Owners Association, the Club Managers Association of America and the Golf Course Builders Association of America in presenting the Golf Industry Show.

The inaugural Golf Industry Show, which combines the GCSAA and NGCOA trade shows, will be conducted Feb. 10-12 at the Orange County Convention Center in Orlando, Fla. CMAA will become associated with the event in 2007 in Anaheim, Calif.

The architects and the builders will develop the building of the green solution center that will feature a 6,000-square-foot putting green constructed on the trade show floor. ASGCA and GCBA members will be demonstrating design and construction methods and providing information about putting green complexes. The ASGCA also will offer its "Remodeling University: A Short Course to a Better Course" seminar.

"As one of the allied associations of golf, it made sense that the ASGCA fully



support an initiative that is bringing the industry together," says ASGCA president Bill Love. "As the organization of professional golf course architects - whose work involves collaboration with superintendents, owners, managers, developers, builders and other important groups - we believe that our participation will provide new outreach and educational opportunities for our members."

GCSAA adds new chapter

Lawrence, Kan. - The Gulf States Superintendents Association is the 104th affiliated chapter of the Golf Course Superintendents Association of America. This new chapter represents more than 80 members in the southern regions of Louisiana and Mississippi.

The following individuals were elected to the chapter's board of directors:

President - David K. McCallum, The Island Country Club in Plaquemine, La.

Vice president - Scott H. Ledet, Gray Plantation in Lake Charles, La.

Secretary/treasurer - Scott A. McKnight, CGCS, English Turn Golf & Country Club in New Orleans.

Director - Bruce V. Corkern, Money Hill Golf & Country Club in Abita Springs, La.

Director - Brandon W. Johnson, University Club at Baton Rouge (La.).

"We are looking forward to developing education opportunities and sharing experiences unique to this area," McCallum says. "In addition, we will promote and advance the golf course superintendent profession."

"The acquisition of the skills, knowledge and abilities necessary to advance the golf course superintendent profession lies heavily within our chapters," says GCSAA president Mark J. Woodward, CGCS. "The Gulf States Superintendents Association will be an asset to its members, the national association and ultimately the profession."

GCSAA's chapter affiliation agreement defines an affiliated chapter as a voluntary association of persons engaged in the management and operation of a golf course that has formed a nonprofit corporation to support each other. It's recognized that this voluntary association promotes activities and programs that benefit its members and the golf course superintendent profession.

Association news

Members added to advisory council

Lawrence, Kan. - Sultan Ahmed bin Sulayem, chairman of Nakheel, agreed to serve on The Environmental Institute for Golf advisory council. He will join nine other members to comprise the 10-person advisory council headed by Greg Norman.

Nakheel, a developer and promoter of Dubai's prominent real-estate projects, launched a division dedicated to the development of golf in Dubai.

The purpose of the advisory council is to provide guidance to the institute's board of trustees for outreach, fundraising and strategic planning. The members were selected to the advisory council to enhance the institute's abil-

Carolinas GCSA puts up numbers

Myrtle Beach, S.C. - Superintendents in the Carolinas topped \$500,000 in gross revenues for the first time at their annual conference and trade show in Myrtle Beach, S.C. The Carolinas Golf Course Superintendents Association staged the four-day event in November that attracted about 2,500 attendees and provided more than 100 hours of education.



"Reaching that milestone of a half million dollars in revenues is clearly healthy for our association, but the figure is also a good indicator for the golf industry as a whole," says Chuck Borman, Carolinas GCSA executive director. "Golf has endured some challenging times in recent years, but we all have learned some valuable lessons as a result and the game will be stronger for it

in the long run. Support of the kind that we enjoyed this past week tells me that business confidence is coming back."

Borman says challenges in recent years have shown a need for improved communication between all aspects of the industry. Stepping towards that goal, the Carolinas GCSA staged a breakfast meeting for golf course owners during the conference and offered owners complementary admission to the trade show and general sessions, normally a \$170 ticket.

Paul Jett, host superintendent for next year's U.S. Open in Pinehurst, says the operations of the Carolinas GCSA play a critical role in the health of the golf industry in the two Carolinas.

"Without this association, we simply wouldn't see the quality of the golf courses that we enjoy in this region," Jett says.

Jett says the association's 1,700 members benefited greatly from research support offered by turfgrass departments at Clemson and North Carolina State uni-

versities. Researchers from both universities work closely with golf course superintendents advancing environmentally sound maintenance practices and in identifying and resolving disease issues.

A record 202 companies bought exhibit booth space during the conference and trade show. Golf course superintendents also filled a record 1,220 seats in education seminars.

Three selected for stewardship

Lawrence, Kan. - The Golf Course Superintendents Association of America's board of directors selected three recipients for its 2005 President's Award for Environmental Stewardship.

The President's Award for Environmental Stewardship was established in 1991 to recognize an exceptional environmental contribution to the game of golf - a contribution that further exemplifies the golf course superintendent's image as a steward of the land.

Stephen A. Kealy, certified golf course superintendent at Glendale Country Club in Bellevue, Wash., was recognized for the salmon stream rehabilitation project he initiated at Glendale. Peter Lund, certified golf course superintendent at Rhode Island Country Club in Barrington, was honored for his involvement with Save the Bay. The third award went to the Oregon Golf Course Superintendents Association for the environmental stewardship guidelines the chapter developed. They are used in Oregon and Washington.

Kealy, Lund and the Oregon GCSA will be presented the award by GCSAA president Mark J. Woodward, CGCS, Feb. 11 at the general session during the GCSAA education conference presented in conjunction with the Golf Industry Show in Orlando, Feb. 7 to 12.

Champions invited to golf tourney

Lawrence, Kan. - The Trans-Mississippi Golf Association invited Golf Course Superintendents Association of America golf champions of the past five years to compete in its Trans-Mississippi Golf Championship, July 18 to 24, 2005, at Prairie Dunes Country Club in Hutchinson, Kan.

The invitations will be awarded annually, with the newly crowned GCSAA champion becoming eligible and a past

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champion rotating off the list.

For the 11th consecutive year, The Toro Co. is partnering with the GCSAA to present the 2005 GCSAA Golf Championship, Feb. 6 to 8, in Orlando, Fla. The championship courses will be the Panther Lakes Course at Orange County National Golf Center and the International Course at ChampionsGate Resort.

The TMGA mission is to fund college scholarships for future golf course superintendents, giving about \$50,000 to universities throughout the United States annually. The funds are derived from the financial support of the association's board of directors and its member clubs and the proceeds of the two golf championships. Donations from individuals and businesses also are sources of support.

Association to fill board vacancies

Birmingham, Ala. - The 2004 annual meeting of the Alabama Golf Course Superintendents Association was held in November at Pine Tree Country Club and elections were held in accordance with the association's bylaws.

Tom Vlach of Greystone Golf Club will serve as president for 2005. Don Cummings of River Bend Golf Course in Jasper was nominated to serve as vice president during 2005. Mark Langner of FarmLinks Golf Club will serve as past president.

Three new members were elected to serve on the board for 2005. They are Jason Miller of the Greystone Legacy Course, Jeremy Sutton of Montgomery Country Club and David White of the Terry Walker Country Club.

Andy Cook of Jerry Pate Turf and Irrigation was nominated to serve an additional term as the affiliate board member. Robert Milliken of Woodward Country Club and Tim Kocks of The Country Club of Birmingham will continue to serve on the board in 2005.

Course news

College course to be developed

Pullman, Wash. - Golf course architect John Harbottle III was awarded the design contract for the planned, 18-hole championship Washington State University Golf Course. Construction docu-

ments are under way for the yet-to-be-named course located on 300 acres of rolling campus terrain. The school wants to create a college course that's capable of hosting the NCAA Championship and exemplifies environmental stewardship. It will be an outdoor classroom where studies can be made in a variety of fields. Construction is scheduled for 2005.

Eagle Creek ends renovation work

Naples, Fla. - Eagle Creek Golf and Country Club, a private, gated golf community, completed a \$2.2 million renovation of its 18-hole, championship golf course.

The course closed April 19, 2004 and underwent a transformation to replace the irrigation system, strip and bury the old turf, replant the entire course with certified 419 Bermudagrass and replace the asphalt cart paths with a combination of

concrete and waste bunker material.

The club hired Cordova, Tenn.-based C.R. Sanders to renovate the course. The Sanders Group has worked on Augusta National for more than a decade.

Originally designed by Larry Packard, with the added help from golf professional emeritus Ken Venturi, Eagle Creek strived to maintain the original course design. The club made subtle changes to improve the playability and enhance the beauty of the course, which is located near a natural cypress preserve.

Tees were rebuilt and laser leveled on every hole. Bunkers were reshaped to original specifications and new sand was added. Seven holes were elevated to improve drainage and rebuilt to their original contours. The new irrigation system is completely computerized, allowing thorough control of all sprinkler heads for more precise watering and enabling Eagle Creek to reduce water consumption.

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Kemper Lakes to renovate clubhouse

Hawthorn Woods, Ill. - Kemper Lakes Golf Club is renovating the interior of its clubhouse. The club hired Lake Forest-based architecture firm Witmer and Associates to provide the master plan for the redesigned clubhouse and the Hutchins Group to handle the interior design of the renovated facility.

New amenities will include a members lounge and card room, a bar and a large stone fireplace in the grill, a 1,200-square-foot golf shop with a separate entrance and a bag storage room located near the bag drop.

The renovation should be completed by mid-April. The public golf facility is trying to convert a into a private one.



Juniper Golf Club ready to open

Redmond, Ore. - Golf course architect John Harbottle III completed his first new course in Oregon. The Juniper Golf Club will be a stand-alone, daily-fee course with gently rolling desert terrain. The 180-acre project was developed by the Redmond Public Building Corp. and built by Oliphant Golf. It's scheduled to open for play in July.

Norman to design Colorado course

Jupiter, Fla. - Greg Norman was selected to design a golf course for the private Cornerstone Club in Colorado on about 6,000 acres. The course will be set among aspen forests, rolling meadows and views of the San Juan and Cimarron Mountains.



The Cornerstone Club golf course is under construction and is scheduled to open in the summer of 2006. This private-equity golf club will include dining that features local chefs, a swim and fitness center, tennis courts and special club area for kids.

California courses being renovated

Tacoma, Wash. - Golf course architect John Harbottle III has three renovations currently under construction in the Los Angeles area: Brentwood Country Club, a classic Max Behr redesign; El Caballero Country Club, host of the Los Angeles PGA event; and Satcoy Country Club, a William F. Bell original.

Additionally, plans are under way for renovation/restoration work at the William P. Bell classic, Brookside Golf Club in Pasadena; Hacienda Golf Club, originally designed by Willie Watson and Charles Mayo; Visalia County Club in Visalia, Calif.; Canterwood Country Club in Gig Harbor, Wash., and Lake Tahoe Golf Course, South Lake Tahoe, Calif.

Construction starts at Olde Stone

Bowling Green, Ky. - Designed by golf architecture firm Arthur Hills/Steve Forrest and Associates, The Course at Olde Stone is under construction.

The course, owned by developer Jim Scott, features white sand bunkers, bentgrass fairways and a layout that follows the natural topography of the gently rolling Kentucky hillside. The course is expected to provide golfers variety and challenging play, according to course architect Drew Rogers.

Some features include: a connected fairway between holes 11 and 12, a natural rock outcropping uncovered during grading and incorporated into the 12th hole and an extended bunker on the 17th hole.

Additionally, the course will have a series of extended collars or chipping areas that reach off some of the greens. These add variety and shot-making opportunities because if the ball misses the green, it will continue to run and collect on the extended collar.



The course topography has been paired with a new irrigation system, which provides the superintendent with pinpoint control over water distribution on the course.

"We've created a lot of land forms so you don't feel like you're on a flat plane," Rogers says. "There is a lot of undulation on the fairways and we've achieved

that by cutting down the area between the holes and filling in the holes. So there's a lot of elevation change that no one envisioned."

Giants Ridge wins Crittenden Award

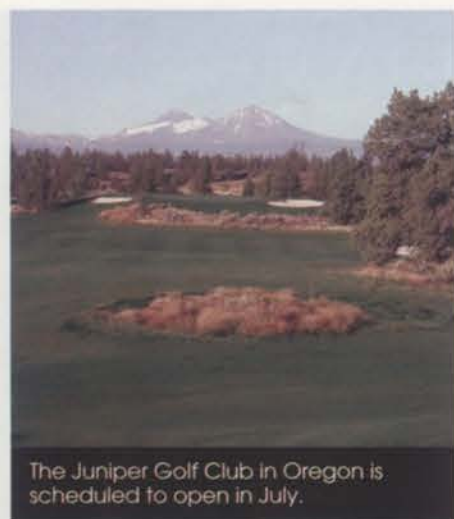
Biwabik, Minn. - The Quarry Course at Giants Ridge received a Golf Development of the Year award from Crittenden. The Quarry, whose Jeffrey Brauer-designed, 18-hole layout spreads across acres of former sand and gravel mines, won the award for best public development built for more than \$5 million. The judging of the third annual award is done by golf course builders and architects and is based on how well the course achieved the development team's vision, its visual appeal and the efficiency of its routing.

Westfield, LRA become partners

Westfield Center, Ohio, and Horsham, Penn. - The Westfield Group, a regional insurance company, engaged LRA Worldwide to help Westfield continue to enhance the guest experience at its corporate meeting center, inn, corporate dining facility and golf club in Westfield Center, Ohio. The Westfield Hospitality facilities are used primarily for Westfield employees and independent agent guests, but the golf club also has hosted several high-profile national and international events, including the past four Junior PGA Championships and the 2004 Junior Ryder Cup.

LRA is charged with helping Westfield reinvent the "experience" at their facilities through an integrated approach that will include standards development, training modules and customer satisfaction research. As the project moves forward, Westfield will be able to measure its progress against the service and facility standards set by other names in meeting facility, resort and golf course management.

Westfield executive Mark Farrell became more committed to this project after Westfield's recent foray into hosting high-profile national and international golf tournaments. When the project is completed, the company hopes that its club and hospitality operations will further enhance the representation of its brand image.



The Juniper Golf Club in Oregon is scheduled to open in July.

Supplier news

BASF Specialty Products selected Nterline technology to manage its marketing database and report channel and end-user sales. Nterline's DataConduit.com marketing database technology organizes wholesale and retail sales data and makes the data accessible to sales and marketing managers through online reporting tools. The Web-based system provides a real-time view of in-season end-user sales by product, distribution partner and region or territory. Users will be able to run year-over-year comparisons, and in the future, distributors using the technology also might be able to see end-user sales in their standard management reports and gain a broader perspective of their business.

Three new service agreements available through **Bayer Environmental Science** offer options for reducing costs of guaranteed mole-cricket and fire-ant control using Chipco Choice. Bayer guarantees insect control with Chipco Choice when it's applied by the company's network of cer-

tified applicators. The company is offering three service agreements to defray costs. First is the Choice two-year service agreement. This plan covers two years of insecticide treatments. An initial application of Chipco Choice for mole-cricket and fire-ant control is followed in the second year with a custom application of new Allectus turf insecticide to provide broad-spectrum control of insects above and below ground, including white grubs. The cost is \$345 per acre per year. Second is the Chipco Choice six-month service agreement. This less-expensive option guarantees six months of mole cricket control. One slit-application of Chipco Choice can provide better mole cricket control than a single application of some other registered mole cricket products. The cost is \$300 per acre. Third is the Chipco Choice four-month service agreement. This one broadcast application provides mole-cricket control for four months at a cost of \$280 per acre.

Bayer Environmental Science's business group will move its North American operations from Montvale, N.J., and Bir-

mingham, Ala., to Research Triangle Park, N.C., the Region Americas headquarters for Bayer CropScience. Bayer Environmental Science is a business group of Bayer CropScience. The move is intended to increase efficiencies within the company by bringing all three of its business groups – BioScience, Crop Protection and Environmental Science – together in one location. The move, projected for mid-2005, will allow closer coordination among these business groups and the company's support functions.

Club Car president and c.e.o. Phil Tralies says the golf industry needs to put its money where its mouth is when it comes to increasing participation.

"Those of us who depend on the health of the game to support our business should be willing to invest in programs that grow the game," Tralies told attendees at the fifth annual Golf 20/20 conference in St. Augustine, Fla., in November. "We should not expect others to do what we're not doing ourselves."

Tralies suggests starting close to home. Club Car recently began sponsoring free



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golf lessons for employees who want to learn the game. The lessons are part of the Link Up 2 Golf player development program offered at The First Tee of Augusta. Link Up 2 Golf was developed by Golf 20/20, a collaborative effort of the golf industry to accelerate growth and participation. Club Car is paying for a pilot group of employees to participate in the Link Up 2 Golf program and hopes to expand the offer to at least 100 employees in 2005.

Deere & Co.'s worldwide net income was \$356.7 million, or \$1.41 per share, for the quarter ending Oct. 31, compared with \$70.6 million for the same period last year.

For the year, net income was \$1.406 billion, or \$5.56 per share, versus \$643.1 million, or making the total for 2004 more than twice that of 2003.

Worldwide net sales and revenues grew 32 percent to \$5.207 billion for the fourth quarter, and increased 29 percent to \$19.986 billion for the year. Net sales of the equipment operations were \$4.612 billion for the quarter and \$17.673 billion for the year, compared with \$3.375 billion and \$13.349 billion for the same periods last year.

FMC Corp. signed a development agreement with Bayer CropScience for the development of new products that combine two active ingredients and will be introduced to the professional turf and ornamental market. The two companies will co-market the products. Additional announcements about these products are expected in the near future. FMC Specialty Products Business makes high-performance insecticides, miticides and herbicides for use by pest management, tree, lawn care, and golf course professionals.

FMC Corp. partnered with Ishihara Sangyo Kaisha Ltd. to market the insecticide flonicamid to the nursery and greenhouse markets. ISK also granted FMC nonexclusive development and distribution rights to a fungicide for use in the specialty markets.

The agreement between FMC and ISK grants FMC exclusive rights to develop, market and distribute flonicamid in all the Americas except Argentina, Bolivia, Paraguay and Uruguay.

Flonicamid is a class of chemistry with a mode of action that's effective against economically important and disease-transmitting pests such as aphids and

whiteflies. It will be marketed in the United States under the name Aria insecticide. The product has a high degree of target pest selectivity and is safe for plants and can be a new tool in integrated pest management programs. In the United States, registration was obtained for the greenhouse market and is pending for nursery applications. Commercialization for flonicamid is expected to begin in the first half of 2005.

ISK also has granted FMC nonexclusive development and distribution rights to an ISK fungicide for use in some specialty markets in the United States.

John Deere Golf & Turf One Source added a new partner – Bayco Golf, which manufactures a variety of products from rakes and flags to ball washers and spike brushes. With the addition of Bayco to the One Source program, these accessories will be available within one day of an order.

The John Deere Golf & Turf One Source program was chosen to provide products and services during the construction and future maintenance of Pendleton Golf Course in Ladysmith, Va. The project, a par-72, 7,100-yard championship golf course, is designed by Thomas Walker and will be constructed by Raven Golf Construction. The course is the first phase of Pendleton Community, a 3,500-unit residential and mixed-use development.

Plant Health Care, a provider of natural products for plants and soil, entered a long-term agreement for product development and commercialization with The Scotts Co. The agreement combines Plant Health Care's expertise in mycorrhizal fungi, bacterial ingredients and related products with Scotts' proficiency in consumer retail product development. Scotts will retain exclusive rights to use Plant Health Care's proprietary technology and plant products, which have been shown to improve plant health, in consumer markets.

Redexim Charterhouse authorized two new distributors – MTI Distributing and Midwest Turf and Irrigation – to carry its complete line of professional turf equipment. MTI Distributing is located in Brooklyn Center, Minn., and a branch office is in Fargo, N.D. Its territory will include Minnesota, North Dakota, parts of South Dakota and

Wisconsin. Midwest Turf & Irrigation is located in Omaha, Neb., and will be responsible for the state of Nebraska, part of South Dakota and western Iowa.

Simplot Partners' northeast division was acquired by Harrell's Fertilizer and two former Simplot Partners turf sales managers. The new independent company will be known as Harrell's Turf Specialty LLC and will be a distributor of fertilizer and chemicals to the golf course and sports turf industries in the Northeast. The company was created by Harrell's Fertilizer with former Simplot managers, David Schermerhorn and Don Hollinger.

Personnel news

Heathrow Country Club, a private club in Orlando, Fla., promoted assistant golf course superintendent **Brandon Sims** to golf course superintendent. Sims replaces Gary Cotton, who retired from the industry. Sims will oversee the club's golf course maintenance operation. Additionally, Sims will manage a staff of more than 15 maintenance and landscape professionals, create and maintain budgets, and supervise maintenance employee safety and training.



Sims

William G. Fielder, retired CGCS, and **Tommy D. Witt**, CGCS at Northmoor Country Club in Highland Park, Ill., were selected as recipients of the Golf Course Superintendents Association of America's Distinguished Service Award. They will be acknowledged at the opening session of the 2005 GCSAA education conference and Golf Industry Show in Orlando. The GCSAA board of directors selects award winners from nominations submitted by affiliated chapters and/or association members. The award is given to individuals who have made an outstanding, substantive and enduring contribution to the advancement of the golf course superintendent profession.

Clay Putnam, a certified golf course superintendent, is the director of maintenance operations at Servi-Scape, a golf course operations and main-



Putnam

Barenbrug and the GCSAA

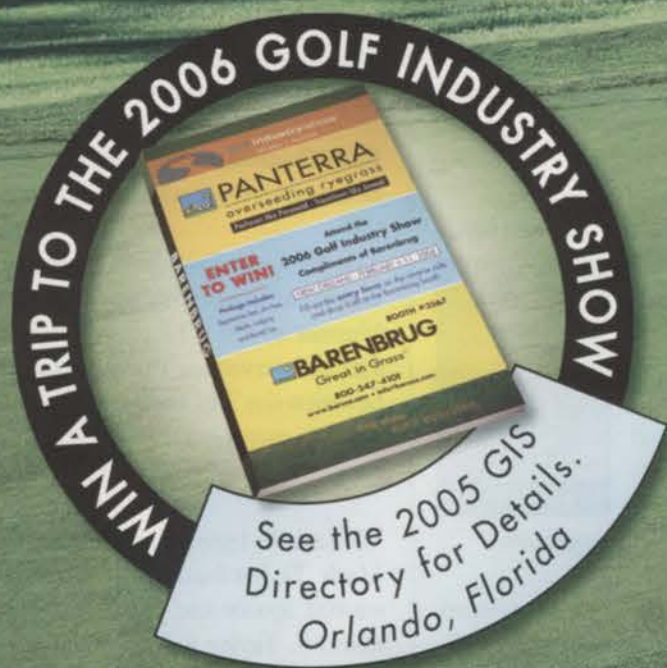
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tenance management company. Putnam returns to the company after five years with ValleyCrest Golf Course Maintenance where he was the operations and business development manager.

Shawn Keller was promoted to golf course superintendent at Indian Wells Golf Club by the Classic Golf Group. His responsibilities include maintaining the golf course, supervising the greens maintenance staff and serving as a club liaison.

Mike Brown, CGCS at Starmount Forest Country Club in Greensboro, N.C., is the new president of the 1,700-member Carolinas Golf Course Superintendents Association. Brown takes over the presidency from Bob Warner, a certified golf course superintendent at Whispering Pines Golf Course in Myrtle Beach, S.C.



Brown

The Georgia Golf Course Superintendent's Association elected new officers and directors. The officers for the coming year are:

President, **Mark Snyder**, CGCS at Berkeley Hills Country Club in Duluth;

Vice president, **Richard Staughton**, CGCS at Towne Lake Hills Golf Club in Woodstock;

Past president, **Phillip (Wade) Thomas** at Idle Hour Club in Macon

New board members are:

Barry Bennett at Valdosta Country Club in Valdosta;

Craig Conner at Summit Chase Country Club in Snellville;

Michael Crawford, CGCS at the TPC at Sugarloaf in Duluth;

Tim Cunningham, CGCS at Coosa Country Club in Rome;

Lane Ferguson at Creekside Golf & Country Club in Hiram;

Harold Franklin at Fields Ferry Golf Club in Calhoun;

Ray Meredith at Follow Me Golf Course in Fort Benning;

Brad Owen at Augusta National Golf Club in Augusta; and

Anthony Williams, CGCS at Renaissance PineIsle Resort in Lake Lanier Island.

Hank Johnson, director of instruction at Sandestin Golf and Beach Resort's Hank Johnson School of Golf, was named "National Teacher of the Year"

by the Professional Golfers' Association. Sandestin is in Destin, Fla.

David E. Zoldoske, director of the Center for Irrigation Technology, is the new president of the Irrigation Association. Zoldoske officially took leadership at the Irrigation Association's Key-note breakfast Nov. 15 during the International Irrigation Show in Tampa, Fla. He replaces Brian Vinchesi, president of Irrigation Consulting.



Zoldoske

Ken Mills, vice president of Rain Bird Corp., is the new president-elect of the Irrigation Association. Doug York, president of Ewing Irrigation Products, is on the board of directors executive committee as treasurer. Other new board members are Jeffrey Carowitz of Hunter Industries, Mark Huntley of T-Systems International and Mike Grundvig of Western Division of Rain for Rent.

M.G. Orender, PGA of America honorary president, was given the 2004 Graffis Award by the National Golf Foundation. The award recognizes outstanding contributions to the game and business of golf. It is named for Herb and Joe Graffis, the brothers who co-founded the NGF in 1936 and worked diligently to promote the growth of the game.



Orender

Fred Eckert is BASF's new turf and ornamental sales specialist for Arizona, California, Idaho, Nevada, Oregon, Utah and Washington. Based in Southern California, Eckert will work with distributors, golf course superintendents and lawn care operators.



Eckert

George Raymond was named western sales representative for Bayer Environmental Science, covering northern California for the golf team and coordinating lawn/landscape activities in the western states.

Dan Johnston is the new equipment territory manager for San Luis Obispo, Santa Barbara and Ventura counties from North to South for Golf Ventures

West. Johnston is a former golf course superintendent with more than 15 years experience in the golf course industry.



Johnston

Otterbine Barebo, a manufacturer of aerators and fountains in the pond and lake management industry, hired Emery "Bud" Laidlaw as the new western regional sales manager. Laidlaw will be responsible for the sales and support of Otterbine's distribution network in the western region of the country.

Brad Helcoski is the application engineer for the southeast region for Rain Bird. Helcoski will be responsible for providing technical on-site service and support for all Rain Bird Golf customers located in the Southeast region of the country. He also will provide technical training to company distributors, employees and customers to help develop and grow new and existing business.

TurfTurf by FieldTurf, a company that sells and installs synthetic turf, hired **Jim Lawrence** as its southwest regional manager. Lawrence will oversee the company's commercial, residential and golf business in Southern California. He also will coordinate the company's sales, maintain and install its commercial, residential and golf products and manage its residential affiliates.

Brian Pearlman was named vice president of human resources for Textron E-Z-GO.

The Turfgrass Producers International's board of directors appointed **Kirk Hunter** to the TPI executive director. Hunter served as the primary liaison between the TPI staff and the board of trustees members and participated on a range of committees and task forces.

Wellmark International appointed **Mark Taylor** business manager for its starbar, apairy and greenhouse/nursery markets. Taylor will be responsible for developing and supervising the execution of marketing and business development strategies for a variety of products including: Altosid IGR Feed-Thru, Extinguish, Extinguish Plus, QuikStrike, Golden Malrin, Prolate/Lintox, Apistan, Mavrik Aquaflow and Enstar II. GCN

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Jack Brennan founded Paladin Golf Marketing in Plant City, Fla., to assist golf course owners and managers with successful marketing. A former associate publisher for *Golf Week*, he can be reached at Jackbrennan@ij.net.

Entrepreneurial superintendent

One of the most popular business books is *The E-Myth* by Michael Gerber. While it's written primarily for small business owners who are struggling and don't know why, it's a good book for superintendents to read.

Gerber's premise is that most small business owners start out by learning a trade — bricklaying, lawn maintenance or law, for example. If they have the right stuff, then they become managers of other people who perform the trade. And if the entrepreneurial bug bites them, they start their own company. The logic is that if you're good at doing a job, you can probably start your own business doing it and make considerably more money.

Unfortunately, the shift from doer to owner is usually flawed logic as the majority of new businesses fail within a few years of their launch. That's a large part of the "e-myth" — that being good at a trade means one naturally will be good at the same thing as an owner. In reality, owning a business involves much more than making customers happy. Owning a business means selling, doing payroll, hiring, training, solving complaints, keeping records and paying taxes. The list goes on.

The relevance of this book for golf course superintendents is that Gerber points out that all small business owners wear three hats — that of the technician, the manager and the entrepreneur (the owner). Owners get in trouble when they don't realize this fact and spend too much time doing the technician or management work and take their eyes off running the business. Owners who sacrifice the big picture to meet day-to-day necessities are most likely to fail.

Golf course superintendents can benefit from seeing their mission as involving the same three hats. They are technicians. In fact, agronomic skills are essential to career success. Superintendents also have learned to be managers of people, resources and budgets. It's my belief that superintendents should also view themselves as entrepreneurs, as the "owner" of their courses — even when that is not technically true.

I say this because successful golf course superintendents need an entrepreneurial mindset. Why? Technical and managerial responsibilities are defined tasks

aimed at maintaining the status quo, while the entrepreneurial mindset involves creating something new or better. Put another way, others can do, or help to do, the day-to-day work and even the management tasks, but only the superintendent can do the entrepreneurial work — seeing the improvements that are possible, the new way of doing things, the way the course could be one day. The entrepreneur is the visionary that sees what could be possible and makes changes that improve things.

Now back to Gerber's business bestseller. The entrepreneur creates something that didn't exist before — their business — and then makes it become real, grow and succeed. Entrepreneurial golf course superintendents do the same thing. They see what's possible and drive the process to make it happen.

Entrepreneurial golf course superintendents that I know enjoy their work more, have great job security and make more money. They enjoy this because they stand out by bringing something special to their work. To do this, they must make sure they're not spending all their time focused on technical and managerial work.

Now, here's something that's not addressed in *The E-Myth*. Few entrepreneurs really invent anything new. The only thing new about a new legal firm, pest control company or home remodeling company might be the location. It could be that they're the first in that town. But competition will arrive, and then what makes the entrepreneur's company stay unique is up to them. It could be the market niche they serve, their price (highest or lowest) or being open on weekends and nights. Successful companies deliver value. And value involves a cost-to-benefits equation. Even being highly efficient in course maintenance is a competitive advantage, as is producing great quality.

To be an entrepreneurial golf course superintendent doesn't require inventing anything new. It means finding the time and making the effort to expose oneself to many ideas. Then superintendents can adopt the best ideas to fit their courses and conditions. It's not stealing. It's progress.

So, where does one get great ideas? Anywhere and everywhere: industry shows, books, other superintendents. But superintendents also can get ideas from outside the industry. The key quality to getting great ideas is to always look for them.

Here are some other things entrepreneurial superintendents can do:

- Take business classes about subjects that will benefit you and the course.
- Create financing ideas for capital improvements not covered in the budget. For example, if \$100,000 is needed for a course improvement, perhaps you can get 100 members or frequent players to contribute \$1,000 each. And for that donation, they get to bring two guests per month at no charge for the year. The entrepreneurial superintendent will see if this is possible, not dismiss the idea because there is not budget.
- Each year, provide the general manager or green committee with two reviews of all the competitors in the area that includes research done from the superintendent's unique and expert viewpoint. Include a SWOT analysis that compares your course to others in terms of strengths, weaknesses, opportunities and threats, and makes the appropriate recommendations.

Play nine or 18 holes in the afternoon with twosome or threesome groups. Ask questions about what they like or don't like about the course.

- Organize a monthly meeting of local superintendents and assistant superintendents. Discuss common local concerns and share expertise.
- Create a committee of fix-up project volunteers. Provide materials but use volunteers to save labor on the projects.
- Develop alternative maintenance ideas. Ask local electric companies or co-ops for their mulched or shredded trimmings instead of buying mulch.
- Find ways to maintain the course to the best possible cost/fee ratio that your market will bear.

The essence of being an entrepreneur is to dream big, and then find practical ways and means to make those dreams come true. GCN

THE ENTREPRENEURIAL MINDSET INVOLVES CREATING SOMETHING NEW OR BETTER.

Praising course builders

Golf course builders are equal partners in the industry. They, in large part through the Golf Course Builders Association of America, have set new excellence standards. There never has been more qualified and ethical companies building courses. These companies contribute as much to the quality of golf courses as architects and superintendents. There's a new collaboration between the American Society of Golf Course Architects, the GCBA and the Golf Course Superintendents Association of America that focuses on environmental platforms and ways to enhance the associations' professionalism.

Superintendents have much in common with builders – people rarely talk about them unless they've made a critical mistake. Both groups' professional organizations instituted strong continuing education programs to help members become better at their craft and certification programs used to set quality benchmarks. "The certification program is having a great impact on the industry," says Lee Hetrick executive director of the GCBA. "More builders are gaining certified status, underscoring the importance of the certification program, which might undergo changes to make it even stronger."

One of the most important program elements is that certification requires annual recertification and a recheck of bonding capacity. Many golf course architects require bidders to be certified members of the GCBA because the financial strength of a contractor is a key element of success. Most horror stories come from incidences in which a contractor ran out of money and couldn't fulfill its obligations.

The GCBA and the GCSAA also have used public relations initiatives to improve the image of their members. While superintendents have worked for years to dispel inaccurate professional images, contractors are behind superintendents in this regard, but are starting to catch up.

Old stereotypes tend to persist. In the past, contractors have been portrayed falsely as only interested in change orders and taking advantage of owners by overcharging for shoddy work. But the vast majority of contractors love golf and golf courses, or they wouldn't be in the business.

Fortunately, negative stereotypes are disappearing. But some club owners still resist using contractors for course improvements

because they feel they can do it just as well themselves. However, they wouldn't consider adding to the clubhouse with an amateur construction crew. Many people don't understand the effort necessary to build a course because it's not sticks and bricks.

Others use new companies, local landscape companies or underqualified contractors for small projects. "Clients use our company to provide a full range of services, from minor golf course renovations to complete golf course developments," says Kurt Huseman, executive vice president of Project Development for Landscapes Unlimited. "The one strategy that reduces project risks and increases the quality of the final product is to use a certified golf course construction firm, no matter how small."

If one wants quality, it's best to use a quality contractor. "Quality expectations should be the same on every project, regardless of the scope or dollar value," says Rick Boylan, president of Mid-America Golf and Landscape. "Why not do a small project correctly the first time? It takes longer to do it wrong than it does to do it right, given that you'll do it again."

Tension between owners and contractors is often about money. In many cases, professional contractor services are deemed too expensive, and clubs look to reduce the contractor's cost by using their maintenance staff to do the work. Often during total reconstructions, golf course contractors can use club crew members for labor to reduce costs for all – the contractor avoids housing costs, and the club keeps a trained crew busy. When using this construction method, contractors provide project leadership – without worrying about other maintenance items or club politics – and experience, a need that's often overlooked.

Despite that the American General Contractors Association once pegged the average contractor's profits at less than 1 percent, there's often a notion that contractors profit too much. If one competitively bids a project, that person can assume the low bidder is working with the acceptable overhead and profit margins. The difficulty and risk of golf course construction is much higher than building construction, in which weather delays cease once the roof is finished. This risk must be bid into any price.

I've seen the unreasonable profit notion develop when owners realize plastic drain tile, costing about 50 cents per lineal foot, bids

at \$5.00 per lineal foot by contractors. But they might forget the fittings; gravel and sales tax; and the cost of owning and maintaining the trenchers, dump trucks and other machines and tools that are figured into the price. Owners also forget the work that has to be redone because of weather or the architect's or owner's wishes.

More tension arises over change orders. Given the unseen conditions prevalent in golf course construction, change orders occur and are justified. Many owners think contractors should assume all risk or ask for other work to be done to even the deal if they harbor ill feelings about the contractor. In some cases, while owners pay for additional work, they might feel that no schedule extension is warranted, even if those additions are considerable.

It's also easier to ignore true accounting, including employee benefits, taxes and overtime pay that comes with adding to the work load of a crew when using in-house staff. While doing it oneself might save some of the contractor's profit margin, one can't assume his crew can do it as fast as the experienced crew of the contractor. Missing a prime grassing window will cost much more than the construction.

Many clubs see modest construction savings but might spend more if problems occur. "A good contractor pays for itself when unforeseen conditions arise," says Tom Shapland, president of Wadsworth Golf. "These are particularly common in renovation projects, where we run across many unknown buried projects of the past." Shapland says many superintendents are good at construction and like the challenge and variety that construction provides in breaking up a normal maintenance routine. But he has seen superintendents run into unexpected construction and member-relationships problems. Many superintendents who've been through it believe the cost of using architects and contractors is worth it to buffer them from their club.

Perhaps the best justification for using contractors on even the smallest renovation projects is that my clients rarely undertake large construction project the second time without using a contractor.

Ideally, one should use contractors for all projects and work with them as if they're a professional equal. A project will be better for it. GCN



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State of golf consulting

Why was the country's golf course inventory so overbuilt coming out of the 1990s when more than 500 new golf courses were opening each year?

One of the better examples of this problem occurred in 1999. With 96 courses already operating in Myrtle Beach, S.C., and about 20 of them facing forced sale, 24 new courses opened during the next two years. Needless to say, that's not a healthy image for golf.

Following 9/11 and the ensuing recession, less than 200 golf courses opened annually throughout 2003. This wasn't an example of planned moderation or forced discipline, rather, it was a matter of economic reality.

As the national economy continues to recover, is there a danger that the golf course development community will return to building more new golf courses than the country (region by region) can sustain? Absolutely — because interest rates remain low and the lack of planning discipline that existed throughout the 1990s still remains.

How might the golf course development community address this persistent problem? Because the golf industry is generally insensitive to the issue, and therefore, doing little about it, there's little hope for better feasibility-analysis work in golf in the near future. Furthermore, who would do this industrywide self-analysis?

Currently, the primary concern with facility development in golf is that there are too few experienced gatekeepers, i.e., qualified feasibility analysts. Accordingly, there are basic problems with the feasibility work in golf.

The first problem is that too few of today's feasibility consultants say "no" to a client developer. A feasibility analyst needs to know more to tell a client developer "why not" to develop a golf course than the consultant needs to know to support a development project. Too many marginal golf course development projects pass feasibility muster that shouldn't.

The next problem with feasibility work is that because today's computer word processing and graphic software programs can make even the weakest feasibility commentary look highly professional and quite credible, again, too many marginal golf course development projects pass fea-

sibility muster that shouldn't.

Finally, and importantly, how often is today's feasibility work objectively critiqued? Infrequently, if ever, primarily because there's little inclination to do so and because there are few qualified to do so. Those few who are qualified to critique are given the opportunity rarely.

This means the main body of today's consultants are denied the fundamental opportunity to learn from their mistakes and past work. The result is that the quality of today's feasibility work in golf is stagnant and isn't evolving at an appropriate pace commensurate with the industry's needs.

Further evidence that golf feasibility work is frequently missing its mark is how often golf course developers turn to real-estate appraisers for feasibility analysis. Talk about mixing apples and oranges! Appraisal work looks back in time for consensus opinion, while feasibility work should look ahead.

What should be done?

The only effective control that will allow golf to gage the rate of future course development more accurately is more mature, accurate and credible feasibility work.

While this is an attainable goal, it's a standard that golf isn't close to realizing yet — not because the quality of feasibility analysis has lessened during recent years, rather, because it hasn't yet evolved to its necessary quality level. How can golf best advance the quality of its industrywide feasibility work?

By first understanding that comprehensive feasibility work consists of three basic elements: market, economic and site analysis, each of which is distinct from the other and with each requiring different disciplines and bodies of knowledge.

Today's feasibility community focuses reasonably well on the market analysis phase, but has less than an adequate feel for economic and site analyses, which too often results in today's feasibility work being one-dimensional and, therefore, misguided.

For example, too few feasibility analysts understand that it's almost impossible to buy pricey land and pay to construct a

\$7.5- to \$9-million golf course without this combination resulting in a highly counterproductive "high debt-high fee-low rounds" scenario.

The window of opportunity for each golf course development project to find the appropriate balance point between fee levels and annual rounds totals is often quite narrow. Only qualified feasibility analysts will be able to produce consistently credible results within this tight fiscal environment.

Next, by establishing an appropriate classroom and Internet-based workshop curriculum that would identify each of the three feasibility components, a curriculum would be test driven by a national certification program with a report review capability for those aspiring to become professionally-licensed golf feasibility analysts.

Like with so many apparent opportunities in golf today, the question must be asked: "What golf organizations are best qualified to implement the suggested feasibility workshop programming?" Where will the necessary leadership be found? There might be two organizations that would qualify and have an interest in this assignment.

First, the National Golf Foundation should because well-defined feasibility

programming would correlate closely with and support NGF's always aggressive efforts to develop meaningful database information

**TOO MANY MARGINAL
GOLF COURSE
DEVELOPMENT PROJECTS
PASS FEASIBILITY MUSTER
THAT SHOULDN'T.**

throughout golf.

Another candidate might be the First Tee program because it raises large sums of money for ongoing golf facility development throughout the country successfully and, accordingly, should want better up-front assurance (protection) that its development projects will succeed.

Presumably, the organization(s) undertaking this assignment would be subsidized by the balance of the golf industry, and/or via federal and/or golf industry grants. The money is there.

Can golf expect to earn the respect it seeks as a sound investment environment with a stalled feasibility program? The answer is obvious. GCN

Better leadership roles

What do the following people have in common: George W. Bush, Peyton Manning, Ken Melrose, Kris and Dave Carpenter, and yourself?

They're leaders. Bush is the president of the United States, Manning is the quarterback of the Indianapolis Colts, Melrose is chairman and c.e.o. of The Toro Co., the Carpenters are parents of two children, and you, a reader, are likely a golf course superintendent or involved in the golf industry.

The message is that we're all leaders. But is leadership important? For the first three people listed above, it's obvious. But what about the Carpenters? Think about the difference between success and failure for the Carpenters as leaders of their family: a harmonious, nurturing family environment versus a hostile, destructive environment. Think of the impact on the lives – presently and in the future – of all members of the family.

What about you? The leadership of your golf course business or maintenance staff will determine its success or failure. So how can you be a more effective leader? Consider six roles you have as a leader:

- Commander;
- Conductor;
- Team builder;
- Supervisor and coach;
- Motivator and cheerleader; and
- Promoter and spokesman.

You possess each of these roles at two levels. First, you're responsible for maintenance of the golf course or your enterprise. Second, you're a member of a formal or informal team that's responsible for the totality of the course, club or business. Your leadership responsibilities at this level are often less clear, less formal and more frustrating. They are, however, no less important. Think of ways you can contribute to the leadership of your course, club or business as you consider these roles.

Commander. Think about the captain or commander of a ship. Similarly, you have a crucial role as the captain or commander of your golf course or business. The ship's captain steers a course that stays away from dangers such as shallow or tur-

bulent waters and provides a safe, enjoyable journey. You must steer your course or business in a direction that avoids being blindsided by changes in the recreation and business environment, meets and exceeds the expectations of golfers or other customers and provides a great workplace for everyone associated with the course. Your commander responsibilities include understanding the world around you, setting business and course direction (compelling vision and strategy), fashioning the culture of the business and establishing the rules of which you and your staff will live.

Golf course superintendents should work with club or course leadership – member/municipal boards/committees, owners, the golf professional, the club manager – to establish the direction of the club or course and the golf course maintenance role in that direction. Then they must establish and communicate the implementation plans for this direction back to the leadership and maintenance staff.

Conductor. Picture the conductor of an orchestra, your local high school marching band or your child's band or choir. This person must select the right person for each position and then orchestrate exactly when each member plays his part. Similarly, in your conductor role, you must select the right person for each position – a great fairway mower might not be as good at cutting cups. You also must direct assignments, flow of people and tasks. It's the leader's responsibility to see that each person is assigned the roles and

tasks that best match his or her talents, skills, experience, interests and the needs of the course or business. Orchestrating your staff provides spectacular playing

conditions for golfers and enables your business to prosper.

Success of the golf course superintendent in the conductor role requires excellence in recruitment and selecting the right people, insight and flexibility to match people and positions, and removing people who don't fit the operation.

Team builder. Think about sports. Does the team with the most talented players always win? No. Winning sports teams

must have talent and work together as a team. Success requires the totality of the team's accomplishments exceed what the individuals could have accomplished alone. You must instill a commitment to an outcome, goal or vision and a team spirit in which everyone strives to meet team and individual goals. Highly successful teams have leaders with high expectations, a lot of skill and patience to train and develop team members, and a passion for and loyalty to the team. A key to success in this role is to recognize that time spent developing a strong team is a valuable use of one's time.

Supervisor and coach. Leaders soon realize their success depends on the people they lead and supervise. In your role as supervisor and coach, you must nurture the employee's self motivation, be clear about performance expectations, provide abundant feedback and continually provide opportunities for the employee to develop. Supervisory skills – like turfgrass skills – are mastered through learning and experience. In this role, there's a lot of time spent listening to employees and time spent providing high-quality performance feedback.

Motivator and cheerleader. A leader sets the tone or establishes the culture for the golf course or business. A leader nurtures morale, commitment and motivation. A leader also is the motivator for the course's or business' work force. This role requires a leader to be positive, upbeat and proactive, even in difficult times. A leader, as motivator and cheerleader, must always remember that words influence our attitudes and the attitudes of those around us, and those attitudes influence our actions.

Promoter and spokesman. A leader is the face of a golf facility or business to the outside world – golfers, customers, potential customers, vendors, employees, neighbors and members of the community. This role is becoming increasingly crucial as environmental, social and political issues become more important. In addition to being a promoter and spokesman for a golf facility, the superintendent is a promoter and spokesman for the importance of extraordinary golf course maintenance.

You can be a great leader, so make plans to increase your success in the role you have. GCN



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THE LEADERSHIP OF YOUR GOLF COURSE BUSINESS OR MAINTENANCE STAFF WILL DETERMINE ITS SUCCESS OR FAILURE.

The right fit

SUPERINTENDENTS NEED TO MATCH THEIR CAREER GOALS WITH A MANAGEMENT STRUCTURE THAT'S SUITABLE FOR THEM

by
**JOHN
WALSH**

Q Why do management companies exist?

There is a whole spectrum of golf facilities. On one extreme are truly small businesses with gross revenue in the hundreds of thousands per year. On the other extreme are golf resorts that gross tens of millions each year. Golf course management companies were formed to provide professional management to golf facilities.

Historically, golf facilities have been operated independently under various forms of management structures. Municipalities were likely the first to hire professional management. California Golf started that way in Los Angeles. Professional management provides proven business systems to increase the effectiveness of a golf business. Just as the industry has demanded that golf course superintendents change dramatically throughout the years from skilled farmer to professional manager, the golf

business as a whole has moved from mom-and-pop-type operations to big business.

When a golf facility is not operated in a sustainable manner that meets the needs of ownership, professional management is an option that should be considered.

Q How are management companies different?

Some management companies only operate courses they own. Others focus on private clubs or high-end daily-fee operations. Most are small, with the average number of courses being about four. I found this surprising when I learned it because the few larger companies that create the standard image of management companies are atypical. *Golf Course News* used to list all the management companies and the courses

they operate on an annual basis.

The larger companies are inherently more bureaucratic. Decision-making is much more complicated than in our small company with 13 properties. The president of the company, Tom Isaak, is only a short drive from all of our courses and every superintendent can pick up a phone and call him any time.

Q Why are 13 percent of golf courses throughout the country operated by management companies?

Golf facilities operate under a number of different business models: private ownership, municipalities, private equity clubs and homeowners associations, among others. Each golf facility has its own objectives and needs. Many are operated purely as a for-profit business, others as municipal amenities, or in the case of private equity clubs as not-for-profit organizations. Many forms of management exist for each type of business. If you look at the needs of a golf business, the form of management employed usually reflects the business needs of the organization, regardless of the profit motive.

Management companies meet the needs of their clients, or they would not exist.

Q Will management companies grow to manage 50 percent of the courses throughout the country?

No. I don't see that. It's hard to tell looking 20 years ahead, but I don't see a dramatic increase. More and more facilities will look at professional management, and some will see it as a benefit, so growth will occur, but not to 50 percent or even close to that in my view.

Whenever there are economic down-

turns, some facilities will look at management companies in their effort to find solutions to their economic problems. When business is good, most managers will continue to do what has performed for them in the past. When facilities aren't able to sustain themselves, they will naturally ask, "Are we managing the business properly?" and "Are we doing the right things?"

Q Is there a type of course that tends to be run by a management company?

Courses that are owned by management companies such as municipalities that do not have in-house golf expertise, private clubs that want to avoid having board members directly involved in day-to-day management, and real-estate investors who are new to golf and must have professional management as a requirement of bank loans come to mind first.

Every business must be operated in an economically viable manner. This might only be a break-even goal for a municipal facility. It might be a certain return on investment for a daily-fee facility. It doesn't matter. They all need to be operated effectively to be successful.

Q Do superintendents look at management companies negatively?

It is a mixed bag. The predominant view is negative. As more management companies have found that superintendents are not a commodity, there are more examples of superintendents who are happily employed by management companies.

The reputation in the 1980s and early 1990s was poor. There have been a lot of stories from unhappy superintendents throughout the years. There was even a recent example of this on the Golf Course

GOLF COURSE NEWS
INTERVIEWS RAY DAVIES,
CGCS, DIRECTOR OF
GOLF COURSE
MAINTENANCE AND
CONSTRUCTION AT
COURSECO, A
PETALUMA, CALIF.-
BASED GOLF COURSE
MANAGEMENT
COMPANY.



Photo: Mark Longwood Photography

Superintendents Association of America forum. There have been instances where superintendents were treated badly. I did not want to work for a management company when I graduated from Cal Poly in 1984. Some of my peers went to work as superintendents right out of school, working for management companies. Management companies seemed to think that one qualified superintendent could supervise younger and less expensive superintendents.

This is not a view I share. At our courses, we have qualified GCSAA members as superintendents. Half are certified members, and they average 20 years experience as superintendents. Most successful management companies have a high regard for the contributions of golf course superintendents, and the number of times qualified superintendents are fired to be replaced by less-qualified and less-expensive people is not as common. It still happens because I hear the stories, but the truth is that we make more money with a better superintendent, so this is not a place to economize.

Was there more focus on the bottom line?

There is always a focus on the bottom line. Otherwise it would not be management, but mismanagement. Superintendents who work for companies that are managed well are usually happy. Golf course management companies have learned that good superintendents make a tremendous contribution to the bottom line. The trend toward hiring more competent superintendents for each course shows this lesson continues to be learned.

Many of the contributions of the superintendent are less tangible to a business because of the tradition of accounting for golf course maintenance as a cost center only. All the major sources of revenue to golf are a direct result of golf course maintenance. So it is a mistake in thinking to have a goal of reducing golf course maintenance. The goal should be to maximize the return on maintenance dollars.

What are several pros and cons of working for a management company?

The answer would depend on the management company. It is difficult and unfair to generalize. I can only address our company. Some of the pros in our company are budgets that match expectations, appreciation for the contribution of superintendents, strong planning that superintendents are key participants in performing and status as a peer of the general manager.



Ray Davies says not all management companies can be labeled good or bad.

The cons are directly related to the pros. There is a lot of planning and assessing of the business. Your weaknesses will feel more visible because you are working for a golf course superintendent. You will be held accountable for the effectiveness of your planning and your execution. "Trust me" is not the basis for decision-making. You will need to be able to communicate your ideas in the context of the customer and the business.

The good news is you are working for people who know and understand your work. The bad news is you are working for people who know and understand your work.

How does a superintendent bring value to a facility?

The superintendent creates the product that the other managers on the site are selling. The quality of the product is the most fundamental piece of a golf business plan. High-quality turf conditions, consistent with the green-fee structure and superior to the competition, is the primary contribution of the superintendent.

We provide superintendents with various resources. This includes his staff, maintenance equipment, irrigation system, maintenance facility and supplies. Superintendents create value by efficiently organizing their operations to utilize these resources. Well-managed irrigation systems cost less to operate and perform better. Well-managed turf equipment costs less to operate and produces a superior product. Well-managed people perform at a much

higher level and result in lower workers' compensation costs.

Superintendents, who create quality turf conditions efficiently, place the business in position for success in their market.

A superintendent's key asset is technical knowledge that is leveraged through effective problem solving and high-quality decision-making.

Q Is the potential for a superintendent to advance his career greater in a management company?

Yes and no. There are opportunities in a golf course management company for superintendents who are oriented toward the big picture and are operating a golf course within the constraints of the business environment. Management companies have the potential for advancement, but I would not say it is greater. Superintendents advance their careers by acquiring a better job with increased compensation, usually with a new facility. With a management company, there is the opportunity to move up within the same company compared with the superintendent who takes a better job with a different facility.

Career success is built on solid accomplishments and do not have to be made within one company. Job security comes from the ability to do good work. A great superintendent will never want for opportunities, and those opportunities are industrywide.

Q Is there better pay and benefits working for a management company?

Pay and benefits are factors of market conditions. We will always hire and retain the talent needed to make our business plans work.

The gross revenue potential of a facility, what I call the size of the platform, has a significant impact on the compensation. If we operate a facility with gross revenue of less than a million dollars, we are not going to be able to afford a compensation package that is top dollar. A high-volume course will have a larger budget and higher course conditioning expectations, resulting in a larger compensation package for the superintendent. High-end resorts and private country clubs will always bring top dollar because they are big platforms.

Q Are high paying country club jobs more risky?

Often they are. Whenever you're working for an employer that really knows your

work, that has technical knowledge and when you are working with peers who understand what you doing, you're going to have more security compared with working for a private club whose member board cannot appreciate what you do technically. You will be rated only on the perceptions of the current board, and you are completely accountable for problems whether they are within your control or not.

Q What's more gratifying or desired, the pay and the risk or the security?

Each of us must answer that question. We all define success our own way. Self-awareness is the key.

Q Is working for a management company a good career move?

Every superintendent position represents a good opportunity for someone. A good career move is any position that provides the opportunity to use your abilities and provide learning opportunities. Management companies operate courses at all price points. Superintendents should be moving to larger facilities with increasing responsibility. By responsibility I mean the larger

need to know what job satisfaction means to you and work to obtain a position that provides you those attributes.

My responsibilities keep me on the road a lot. I drive more than 40,000 miles every year visiting our courses and investigating business opportunities. All of our courses are in Northern California, so I don't have to fly much. Working with golf course superintendents and using my agronomic knowledge to leverage our businesses is rewarding for me.

Q If superintendents move from a private club to a management company, would they lose freedom?

Golf course superintendents at private clubs are quite independent, but they have controls placed on them by their boards and general managers.

Some management companies restrict or control purchasing decisions that limit superintendents more than at private country clubs. One of the important values a management company brings is buying power. To consolidate purchases to best position the company to buy at the best price is an important aspect of good management. But price is only one aspect of

"Some management companies restrict or control purchasing decisions that limit superintendents more than at private country clubs."

revenue source that the course they are caring for represents.

A superintendent that moves from a golf course with gross revenue of \$2 million to a course with gross revenue of \$3.5 million has an increased responsibility. In the private country club side of our industry, the membership fee of the facility will determine whether the superintendent is taking on increased responsibility. If you are moving to a club with a membership fee of \$25,000 after working at a club with a \$10,000 membership fee, you have more responsibility. You are on a larger platform where there is more risk and more rewards.

However, not everyone is looking for increased responsibility and a top-dollar job. Some superintendents want to be appreciated, have an interesting course they will come to love and work with people they like. If you are happy with your position and a higher paying job comes up, it doesn't make sense to move simply for pay. You

the transaction. Service issues, which include delivery, billing, problem resolution and technical information, are important factors as well.

Our policy is to create buying agreements with more than one vendor if possible and allow the superintendents to use their own discretion when selecting suppliers. If they are paying more for a product than is available from a preferred supplier, they need to justify the decision based on the net benefit to the facility. We do not retain rebates from these buying agreements. The rebates go back to the facilities, to the maintenance departments, where the superintendent controls their use.

Our superintendents have more freedom. They also have more responsibility outside their department. They need to understand our business plan and the critical role they play. They also must contribute to the management of the entire operation. We ask

(continued on page 68)

What's expected

DIFFERENTLY SKILLED PLAYERS AND BUDGET CONSTRAINTS
MAKE MEETING GOLFERS' EXPECTATIONS CHALLENGING

by
JOHN
WALSH

Golfer expectations have increased throughout the years partly because of the beautifully manicured courses seen on television. Golfers expect those pristine conditions on the courses they play, however, many don't understand the cost to maintain them. Expectations vary from course to course, but one thing is certain – what golfers pay for a round influences or determines what they expect.

What golfers pay for a round determines the enjoyment they expect to get from a course, says Jack MacKenzie, certified golf course superintendent at the private, 18-hole North Oaks (Minn.) Golf Club. MacKenzie says many expectations are evaluated at the end of a round and depend on how well a golfer played.

"There are so many variables beyond the superintendent's control," he says. "The weather, whether it's a big event or a foursome – all that is a reflection of the round."

Expectations of public courses vary because there are different types, such as mom-

and-pop courses that are less expensive and newer ones that cost \$80 or more a round. David Webner, golf course superintendent at Westwood Country Club in Rocky River, Ohio, also says expectations are tied to the cost per round.

"We want people to say 'wow' when they're done," Webner says. "I can go to a course and pay \$20 a round and say 'wow' because my expectations are lower, but the place can still impress me. It will take a whole lot more to impress me at a place like Pebble Beach."

"I've played some places that aren't expensive but have nice greens," he adds. "I can play at nice places but find the trees aren't trimmed nice and neat. I would expect no weeds in the flower beds at Pinehurst. I'm impressed with the guy who's got a smaller budget and has a real nice course."

What to expect

Many times golfers' expectations are what they think they deserve after seeing golf courses on television – lush and green all the time and smooth, fast greens all the time, according to Barry Mueller, certified golf course superintendent at the public, 18-hole Franklin Canyon Golf Course in Hercules, Calif.

"The caliber of golfers here are high handicaps," he says. "If I had the speed of the greens that fast, the golfers wouldn't be able to keep their balls on the greens."

The expectations at Franklin Canyon aren't to have super-fast greens. They are to have smooth greens at a reasonable speed and to have a decent stand of grass in the fairway, considering the irrigation system is old and is being upgraded by replacing irrigation heads and moving them to achieve more uniform water coverage.

Mueller, who's been a superintendent since 1974 and is employed by American Golf Corp., says golfers generally don't have any concept of what it costs to maintain a golf course. And meeting their expectations are difficult because of budget constraints and

labor shortages.

At North Oaks, expectations include changing cup locations every day during peak season, having a clean bathroom on the course, having a staff that's respectful to members, tuning up the course for special events, and mowing and rolling the greens daily.

"We don't do anything different, but it's the golfers' expectations and perceptions that change," MacKenzie says. "We're always ahead of the curve. We provide members and guests the most optimal course possible within the budget and weather conditions."

At Westwood, Webner says the staff struggles with the club's expectations.

"Our members' average handicap is about 18 or 19," he says. "They don't enjoy super-fast greens, but there's a small group of good golfers that want lightning-fast greens and deeper, thicker rough."

"What the first-time golfers here walk away with is what they will remember forever or until they come back," he adds. "We shoot to please every guest that comes in here. We struggle with money. Do we do a little too much? Maybe we ought to spend less. Some ask, 'What does it take?' so I ask, 'Do you want to be the best on the west side of Cleveland or the best in Cleveland?' Our mission statement once stated the condition of the course was to be the best in the state, and one guy said that was unrealistic, but that's what we were shooting for. It ties back to potential members. We want to exceed their expectations."

To meet or exceed those expectations, Webner says he and his staff do a lot to make the course look neat and clean, such as edge the bunkers constantly, hand mow greens and tees, and cut the fairways five days a week. In season, the cups and markers are changed daily.


"We strive to not have disease," he says. "Color is not the most important thing. The course needs to stay dry, firm and be as fast as possible."



Photo: Franklin Canyon Golf Course

At Franklin Canyon Golf Course in California, golfers expect reasonably fast greens and decent stands of grass in the fairways.

Photo: Frestone Country Club



At private clubs such as Firestone Country Club, golfers tend to have the mentality of taking ownership of the course compared with golfers at a public course who often do not, according to Brian Mable, golf course superintendent at Firestone.



Photo: Firestone Country Club

At Firestone Country Club, superintendent Brian Mabie says bunker maintenance is the biggest complaint from golfers.

A budget makes the expectations, according to Webner. Most of the bigger golf course maintenance budgets are tied up in labor. As an example, Webner says his staff hand double-cuts greens every day and rakes bunkers. But he says maintenance budgets don't compare well and one has to look deeper.

"For example, we pay for city water – there's \$70,000 a year," he says. "Compare that with a course that's pumping water out of a lake and just pays for the electricity to pump it."

Brian Mabie, golf course superintendent at the 54-hole Firestone Country Club in Akron, Ohio, says private clubs spend more money on their courses, which is the nature of the beast.

"Golfers expect no ball marks and faster greens than on public courses," Mabie says. "People take ownership at a private course."

Other differences a golfer might expect at

a private course compared with a public one include shorter mowed tees, fewer divots, irrigated fairways and roughs, and bentgrass fairways instead of bluegrass or ryegrass fairways (in northern regions).

"All this said, the public guys turn out a great product," Mabie says. "You have your A, B and C courses. You get a lot more for your money than you did 15 years ago on a public course."

To maintain expectations at Firestone, greens are mowed at $\frac{1}{10}$ of an inch, fairways at $\frac{1}{4}$ of an inch and tees at $\frac{3}{16}$ of an inch. The greens and tees are hand-mowed, and the fairways are cut with a triplex mower. The courses are disease free because of the preventive fungicides used, Mabie says.

The squeaky wheel

Complaints from golfers are related to the

expectations they have of a course. Superintendents try to remedy those situations but know they can't please everybody.

MacKenzie says remedying the complaints about North Oaks are related to money and agronomy. For example, the Hispanic help he has ends in October. He says the course should be in better condition but he doesn't have the manpower that impacts the expectations of those who play late in the year in Minnesota.

"I pursue feedback from members, and 95 percent of the remarks are positive," he says. "Those that have expectations that aren't met say things like 'the greens are too slow,' 'the bunkers aren't consistent,' and 'the rough is too long.'"

"I internalize the comments and say I'll bring these issues up with the green committee and come to a decision," he adds.

"Nine out of 10 people will listen to me with an open mind. My place isn't to say anything to members, it's to listen to their complaints. I don't have many chronic complainers, and everyone knows who they are — that's parts of being at a private club. Legitimate complaints come from those 95 percent who say the course is great until it isn't. An example is the tough winter we had in the past causing us to lose grass. Members will say, 'the course isn't great, but we see you're doing something about it.' I'm fortunate. I have great membership."

At Westwood, Webner receives complaints about bunker consistency, even though 10 percent of his labor pool is spent on bunker maintenance.

"They were redone in the early 1980s, so the sand is 25 years old," he says. "Some members want it really fluffy, others want it real firm. The bunkers and rough are our two biggest complaints."

And green speed is always an issue, too.

"The green committee wants green speed to be about 10 or slightly above," Webner says. "When you get to 11 or above, we get complaints from higher-handicapped golfers."

We shoot for pretty decent green speed. Slightly over 13 was the highest we've ever had, but it became unplayable for most of the members.

"I'll talk to members and explain why we do certain things," he adds. "If I can please 70 percent of the members, I'm OK. I'm not going to please everybody."

At Firestone, Mabie says he doesn't get feedback directly from golfers.

"We conduct member surveys, and bunker maintenance is the biggest thorn in my side," he says. "We rake them in the morning and after the first golfer, they change."

Firestone members usually bring guests and play during the week. There also are many corporate outings consisting of 30 to 60 people.

"Sixty percent is guest play — that's why I don't have a lot of complaints," Mabie says.

Mabie's ideal way of handling complaints is to talk to a person face-to-face so he can find out specifics about the complaint.

"When I address a complaint, I don't defend myself and give excuses because it just becomes an argument," he says. "Instead, I ask what we can do to make it better. Most complaints are legitimate and worth looking at."

At Franklin Canyon, the biggest complaints Mueller receives are about the bunkers. He says the course and the sand are 40 years old, and the sand doesn't drain anymore.

"We are redoing the bunkers in-house as we have the money," he says. "And now that

we're changing the bunkers, some golfers are complaining that it's too soft, and others are asking when we're going to do the rest of the bunkers. Our greens fees are middle of the road (\$25 to \$30 during week, \$50 to 55 during the weekend), so I told them as soon as you're willing to pay \$100 a round, then we'll finish the bunkers this summer."

When dealing with complaints, Mueller explains to golfers the cost of maintaining a golf course.

"We have a bunch of regular players that play here every day that understand," he says. "Some golfers that don't play here regularly

don't understand. The loyal golfers see the progress that we've made during the past four years. They know what to expect."

Mueller says meeting golfers' expectations aren't easy, but they're not difficult either because they're reasonable.

"The biggest concern I have is with the downturn and reduced budgets, and we're still expected to meet expectations," he says. "It gets more difficult each year." GCN

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



At North Oaks Golf Club in Minnesota, remedying golfer complaints are related to money and agronomy, according to superintendent Jack MacKenzie.

Photo: North Oaks Golf Club

Smart buying

**SUPPLIER SUPPORT, COST AND USAGE HELP DETERMINE
WHAT EQUIPMENT SUPERINTENDENTS SHOULD PURCHASE**

by
**JOHN
WALSH**

Purchasing maintenance equipment is an important decision for golf course superintendents. It's done differently at each course. Some equipment is bought, and some is leased. Some is bought used, and some is bought new. Although superintendents handle purchasing differently, they have processes and recommendations other superintendents might find helpful.

How it's done

Ken Flisek, golf course superintendent at

The Club at Nevillewood in Presto, Pa., doesn't work with a general manager – he works with a finance committee and board of directors.

"I run purchasing decisions through the committee, and then the board makes recommendations," he says.

Flisek keeps a detailed equipment inventory with sections for greens mowers, fairway mowers, rough mowers, utility vehicles and sprayers. There's a total for each category, a record of the purchase date for

each, a projected replacement date for each and a date when each item will be paid off and if it was bought with a loan.

Flisek also puts the date a machine was purchased on it to help remind him how old the piece is and when it's projected to be replaced.

"Then I can always see what I need to replace first," he says. "Sometimes it helps if members see how old the equipment is, and they can see what needs to be replaced."

Flisek, who has almost \$1 million of



John Feiner, superintendent at Johnson Park Golf Course, and his business partner don't buy much equipment, and when they do, it's often used.

Photo: Johnson Park Golf Course

equipment inventory, likes to buy large equipment packages every three or four years because he says bigger packages equal bigger discounts and better prices.

"We are switching from five-gang mowers to triplex mowers," he says. "We had four five-gang mowers, now were down to two, and soon we won't have any."

Flisek also shares some equipment, such as aerifiers and tractors, with other golf courses nearby to save money.

"I'll buy one machine, and he'll buy one machine, and we'll share the equipment and schedule aerification so we're not doing it at the same time," he says. "My club loves sharing equipment because they see the savings. More superintendents can take advantage of it, but it takes a bit of work and planning."

Some maintenance at The Club at Nevillewood is contracted out (costing about \$5,000) because Flisek doesn't want to spend \$20,000 on a machine he uses once a year.

"Aerifying fairways is something we do once a year and have contracted out because the contractor has three or four machines and can do it in two days, whereas it would take us a week."

At the daily-fee Johnson Park Golf Course in Racine, Wis., John Feiner, golf course superintendent, and his business partner don't buy that much equipment and maintain the equipment they have. When they buy equipment, many times it's used.

The last pieces of equipment Feiner bought were two used Ransom fairway mowers and two used Jacobsen triplex greens mowers. He used to purchase more prototypes directly from Jacobsen when the company was in town.

Feiner says he has no budget for purchasing new equipment partly because the course is leased from the city of Racine.

Jason Amoy, golf course superintendent at the 18-hole Mid-Pacific Country Club in Kailua, Oahu in Hawaii, says his purchasing process and decision making are easy and typical.

"My responsibility is to determine our maintenance needs and submit a budget," Amoy says. "We try to forecast five years out, and we go year by year and submit a budget prior to the next fiscal year, which is from July through June. Numbers are looked at, and money is assured."

Kevin Ross, certified golf course superintendent at The Country Club of the Rockies in Vail, Colo., is the sole decision maker when it comes to purchasing equipment. Ross goes through the equipment to see what he needs to replace and to see if

Equipment purchasing tips for golf course superintendents

What to do

- Demo each piece of equipment you buy – it's critical.
- Wheel and deal at the Golf Industry Show.
- Realize it's hard to save money from the big three (Toro, Jacobsen and John Deere).
- Buying used equipment is a good idea for clubs that are in a budget crunch.
- Purchase equipment not used often with other local clubs to save money.
- Plan ahead.
- Make large purchases to get better prices.
- Be organized – have detailed inventory to show the board of directors.
- Discuss purchases with the guys running the equipment.
- Get feedback from the mechanic because he knows what's most reliable and what needs less maintenance.
- Ask for videotapes that help/instruct operators.

What not to do

- Don't tie yourself to one vendor because there's going to be some pieces you get that you won't like. Get the best machine for your needs and consider which vendor will give you the best service. If you work with all the vendors, someone always does a good job to increase their share of equipment with you. If you have just one distributor they tend to take you for granted.
- The lowest bid isn't the way to go, but if it comes down to money, it's understandable.
- Try not to buy too many machines in the first year of production because it usually takes one year to get the bugs out.

Source: *Golf Course News* research

there is anything new on the market he would like to buy. He submits a list to the board of directors, and they give approval. And he doesn't lease anything.

"We pay cash for everything," he says. "We don't take out bank loans. We recently completed a \$3.5 million clubhouse renovations and paid cash for it. It's a good deal for me. Every piece of equipment I've asked

for in the past 10 years, I've gotten.

"I'm not married to any color or salesman," he adds. "But when buying equipment, a superintendent should ask for a demo for longer than an hour. You need it for three days to a week if you can."

Club members mostly are retired chief executive officers of Fortune 500 companies and is the reason Ross pays cash for equipment.



Kevin Ross, certified golf course superintendent at The Country Club of the Rockies, says superintendents should demo equipment for at least a few days before purchasing anything.

Photo: Kevin Ross



Photo: The Club of Nevillewood

Some maintenance at The Club of Nevillewood in Presto, Pa., is contracted out because its superintendent doesn't want to spend \$20,000 on a machine he uses once a year.

The club also has a \$30,000 contingency fund, but Ross says the most that was ever spent out of that was \$16,000.

Timing

Choosing the right time to purchase equipment also is a key to smart buying. Most of the equipment Flisek purchases is done so through a four-year bank loan or a four-year lease with a dollar buyout at the end of the term. He makes smaller purchases of about \$50,000 in between the larger \$200,000 to

\$250,000 purchases every four years.

"We purchase most equipment, but some stuff is leased," he says. "Anything that lasts more than five years, we buy. All utility vehicles are leased through a distributor. We have a four-year lease on those. Of the 10, five are new, and five are used. A few of the used are old golf carts that were converted by the manufacturer into people movers with small flatbeds. A new one costs \$6,000, and the three-year-old cart is less than \$2,000."

In 2000, Flisek bought \$250,000 of equipment on a five-year loan from a bank. It will be paid off this year. In the fourth quarter of last year, he planned for what he will purchase this year and next — fairway mowers and walking greens mowers.

"The walking greens mowers we use on the greens for five years, then they are used on the tees for another five years after that, so we get 10 years out them," he says. "Fairway mowers usually last six to eight years. After six years, you're putting so much money into maintaining them that you're better off buying a new ones."

Ross says that after six years he will trade-in his fairway mowers, which cost \$35,000 to \$40,000 a piece. Compare that to the cost of a tractor that he pays \$28,000 for and lasts 20 years. Ross bought a rough mower two years ago for \$48,000, and the one before that lasted nine years.



Photo: Johnson Park Golf Course

When buying used equipment, one of the things to look at is the engine to see how many hours it has been used.

Ross has 24 walk-behind mowers — 12 for the tees and approaches and 12 for the greens. He's had some for four or five years and others for eight or nine years.

"They still look like new because our mechanic does a super job," he says.

The last time Feiner bought new equipment was about six years ago when he purchased two greens mowers and a utility vehicle. He also bought a new sprayer about 10 years ago. He's still using that equipment. He doesn't have any specific timing schedule for purchasing.

When Amoy decides to purchase equipment, he goes through two or three vendors. In the third quarter last year, Amoy purchased some rough, greens and tee-box mowers, and a couple utility vehicles. He says this equipment should last seven to nine years. The new equipment replaced 15-year-old equipment.

Amoy says he can purchase equipment at any time during the year when he needs to.

"You always want more than you can afford, but there is a paring down process of evaluating needs and figuring out what we can wait another year for," he says.

"It all depends on the local vendor. Service is everything nowadays."

Purchasing steps

If a course is new, that can affect the purchasing decision. The public, 18-hole Boulder Point Golf Course in Elko, Minn., opened in 2002 and was a new construction project. Brad Zimmerman, the course's golf course superintendent, looked at three packages from three major distributors, all of which had comparable equipment. But Zimmerman wanted to buy from the vendor that was going to give him the best service after the equipment was purchased. He also decided to buy from one vendor because of the price he got for buying many pieces of equipment from one vendor. Zimmerman took his decision to the ownership, and they agreed. They discussed what was needed, what wasn't needed and what they didn't need immediately.

To start, Zimmerman purchased four triplex mowers, two fairway mowers, two rotary rough mowers, two walk-behind mowers, one sprayer, two utility vehicles, one bunker rake, two aerifiers and one tractor. The equipment was delivered about a month before the course opened. A skid loader and a small walk-behind blower were purchased later.

"I'm sitting in really good shape," Zimmerman says. "I don't need more equipment right now."

Zimmerman says he did consider leasing the equipment, but says he was better off buying it because the equipment will last a long time and he can change parts when

needed. After four years (in 2006), the course will own the equipment.

"We are in a constant state of evaluating the equipment and are doing preventive maintenance on it," he says.

Zimmerman, who is in his first superintendents job where he is making decisions about equipment purchases, says leasing is an option in 2006 because he never rules anything out if it's a good business decision.

He says it was also important that the vendors he bought from loaned him used equipment to use during the grow-in phase so he didn't have to use the new equipment he purchased because grown-in is hard on equipment. The equipment used on grow-in was free of charge.

"That was a huge benefit to us," he says.

When Feiner purchases used equipment, the main thing he looks at is the engine to see how many hours it has. He says when an engine has about 2,000 to 2,500 hours, it starts going down hill, and he won't purchase a piece of equipment if it has that many hours on it.

He says with the number of equipment leased and the amount of equipment turnover, there's a decent amount of used equipment for sale.

Amoy says things are different in Hawaii because there are no leasing programs and there's a limited number of inventory.

"I would like to lease equipment next

time I need new equipment, specifically mowers and utility vehicles," he says.

Recommendations

Feiner recommends other superintendents look for good used equipment because it can save them money.

"You can end up with two good pieces of equipment instead of one," he says. "There is a glut of good used equipment out there. But I see more new stuff going around to other golf courses. Country clubs have larger budgets than we do. We're a municipal course with fairly cheap greens fees so we have to watch our money."

He says good equipment also can be purchased at an auction.

Feiner also recommends superintendents don't purchase prototype equipment because replacement parts are difficult to find, even though it runs well at first.

"I bought a prototype one time, and parts became a problem," he says. "I would stay away from them."

Zimmerman advocates support after the sale.

"You need to know a vendor well and how you will be supported for the life of the piece of equipment," he says. "The vendor's support is just as important as the capability of the equipment." GCN

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Purchasing versus leasing: What to do?

Many golf course superintendents have the option of leasing or buying equipment. Leasing allows superintendents who don't have the cash to buy equipment use it. Many times superintendents make this decision blindly, according to Cleve Cleveland, certified golf course superintendent at Newark Valley (N.Y.) Golf Club.

"Leasing companies are into leasing equipment to make money," Cleveland says. "In the long run, it's not the cheapest way to get equipment. It may be good for the short term or if you're only going to use the piece of equipment a few times a year. You lease equipment to use it, not to own it."

Cleveland says there are terms superintendents should know. A residual is the buyout price at the end of the lease. The superintendent pays the difference between what the lessor buys the equipment for and what they're going to sell it for at the end of the lease. An open-end lease is when the lessor determines the worth of the item at the end of the lease. A capital lease is having the option to buy the equipment at less than fair market value, and there is no transfer of title.

"It doesn't pay to keep leased equipment well maintained," he says.

The decision comes down to which costs more money.

"A lease is only relevant when purchasing equipment is an option," Cleveland says.

Reasons to buy equipment includes having the cash and no impending alternative use for it, purchasing incentives from the manufacturer, and intending to keep equipment for five years.

Reasons to lease include not having cash, being in a new construction situation; replacing it in five years, lease incentives, and other impending uses of cash. GCN



Some specialty equipment, such as deep-tine aerators, is contracted out instead of purchased by clubs.

Photo: Kevin Ross

From glum to green

DEVELOPERS TURNED LANDFILLS AND ABANDONED ROCK QUARRIES INTO THE LAST NINE HOLES OF A GOLF COURSE NEAR BOSTON

by
PETER
BLAIS

Sometime during the fall, John Sanford, Gary Kessener and Dan Bastille should heave a collective sigh of relief that will be heard throughout New England.

Sanford is the course architect, Kessener the construction superintendent and Bastille the maintenance superintendent at suburban Boston's Granite Links Golf Club at Quarry Hills, which is scheduled to open the last nine of its 27 holes when the project, first proposed almost 15 years ago, draws to a close in late 2005.

"It's going to be great to basically just worry about mowing the grass," Bastille says.

From the start

Developers Chick Geilich and Bill O'Connell first approached the towns of Quincy and Milton with a proposal to build a golf course and soccer and baseball fields on top of three landfills and numerous abandoned rock quarries on a 480-acre site that

straddled the two communities seven miles from downtown Boston. The municipalities signed 50-year lease agreements with the developers to close the landfills and then build and operate the facilities.

Needing massive amounts of material to close the landfills and construct the course, the developers negotiated a public/private partnership with the Massachusetts Highway Department's Central Artery/Tunnel Group. It called for delivery of more than 12 million tons of excavate (as many as 1,200 truckloads daily) from the Big Dig, a nearby highway project designed to improve automobile traffic flow through Boston. The tipping fees paid by the state for the excavate would help pay for the golf project.

The site overlooks the city skyline to the north, Boston Harbor and the islands to the east, and the 30,000-acre Blue Hills Reservation wilderness park to the west and south. After years of negotiations, excavate deliveries and course construction started in the late 1990s. The first nine holes opened in

2003, the second nine in 2004, and the final nine should be ready for limited play in the fall of 2005.

A piecemeal plan

The developers selected Sanford, a Jupiter, Fla.-based designer who grew up in Massachusetts, as the architect of the \$100-million-plus project in the mid-1990s.

From a design standpoint, the biggest challenge was having to build holes piecemeal during long periods of time, according to Sanford. On most sites, an architect can rough-in a hole, stand on the tee, look at the bunkers and green complex and make changes to fit the eye. Not at Granite Links, where material-delivery and closure schedules for various portions of the landfills meant different parts of the course had to be built at different times.

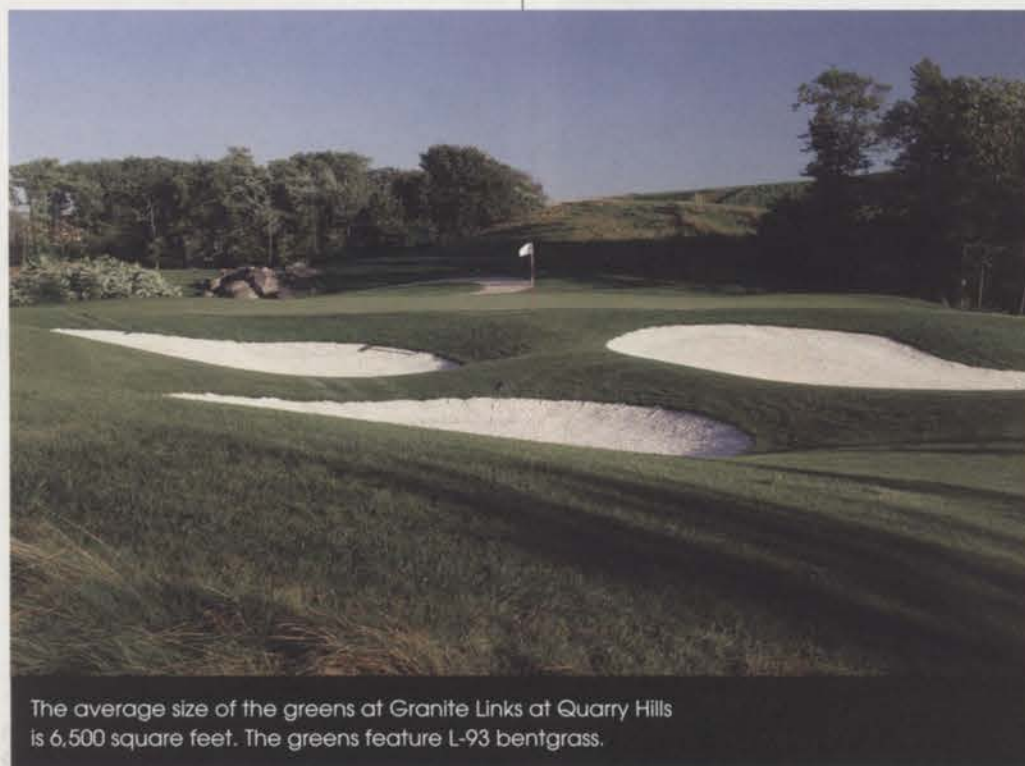
"We were never able to build an entire hole at once, stand on a rough-shaped tee and look at the fairways and features all the way to the green," Sanford says. "It was always build a tee here and a green there and then come back later and fill in the gaps. Everything had to be clay capped in areas and laid out by the engineers before we could actually build golf holes. As far as the state and regulatory agencies were concerned, closing the landfill was primary and building the golf course secondary."

Because he couldn't go back and make changes, Sanford had to stick to his grading and strategy plans and trust the team's initial instincts when it came to course design and finished grading.

"We had one shot at it," he says. "The permitting didn't allow us to make any real grade changes. All things considered, I'm happy with the way the course has turned out. A lot of the credit goes to Kessener, Bastille and their guys."

Layers upon layers

Dealing with the amount of fill and the layering of four different types of material was



The average size of the greens at Granite Links at Quarry Hills is 6,500 square feet. The greens feature L-93 bentgrass.

Photo: Granite Links Golf Club

Photo: Granite Links Golf Club



Finding sufficient ground to lay down the massive amounts of fill material, roughly 10 million cubic yards, was a major challenge.

another considerable design challenge. The material that came out of the Big Dig was placed down first; and it was shaped to match the finish grade, minus five feet. Into that final five feet went three more layers: an impenetrable clay cap 12 to 18 inches deep to keep water from getting into the former landfill; a 2-foot sacrificial layer consisting of glacial till, river sediment and whatever else could be found above the cap that had to be shaped to match the final grade and cover the drainage and irrigation infrastructure; and a foot of clean, sandy topsoil to serve as the growing medium.

"In Florida, for instance, we usually just shape the native material then grass it be-

cause we have pretty decent sandy material," Sanford says. "Worst-case scenario, in Massachusetts or elsewhere, you shape the subgrade, cap it with topsoil, and you're done. What made this challenging architecturally is that every time you put on another layer it tends to melt the features. We had to visualize the historic fill grade and vertically exaggerate it. That way, as we layered over it, we would still have the final shape we wanted, while keeping the depth of each layer consistent.

"There was a lot of visualization that Kessener, the shapers and I had to put into the base-grade shaping and clay capping because we knew we had to put more lay-

ers on top and still come out with good-looking bunkers, greens, tee complexes and fairway contouring. Kessener has a good eye. We spent a lot of time talking about how we needed to exaggerate the features in the historic fill to end up with what we wanted, realizing each additional layer would melt and flatten out, which can make you lose edges, slopes and features."

Finding sufficient ground to lay down the massive amounts of fill material, roughly 10 million cubic yards, was a major constraint. Piling material that high at such a severe slope eventually would have resulted in peaks with no horizontal ground for golf course holes.



Maintenance superintendent Dan Bastille tests water constantly for nutrients and the methane gas produced underground by the closed landfill.

Photo: Granite Links Golf Club

AT A GLANCE

Granite Links Golf Club at Quarry Hills

Location: Quincy & Milton, Mass.

Course Type: 18-hole semi-private course, expanding to 27 holes in late 2005

Course opened: First nine in 2003

Yardage: 5,001, 5,547, 6,300 and 6,818

Par: 72

Average green size: 6,500 square feet

Number of bunkers: 50

Fairways: SouthShore, Putter and L-93 bentgrasses

Tees: L-93 bentgrass

Greens: L-93 bentgrass

Slope: 141, 134, 126, 135 (women's white), 124

Rating: 73.4, 71.6, 68.5, 73.9 (women's white), 70.6

Course construction

superintendent: Gary Kessener

Superintendent: Daniel Bastille

Developer: Quarry Hills Associates

Construction Co.: In-house staff

Architect: John Sanford

Owner: Quarry Hills Associates

"I went back to my experience in Japan of terracing holes on mountainsides," says Sanford, who designed Regent Miyazaki Country Club in the Asian island nation. "We cut in terraces, like we did in Japan. Some of the terraces had 90- to 100-foot fills. We filled and created terraces with no more than 5 percent cross slopes off the sides of the landfill. Otherwise the course wouldn't be playable."

Preserve areas

While working with the landfills, 16 abandoned rock quarries and normal environmental constraints such as wetlands, Sanford estimated he drew 30 to 40 preliminary 36-hole routings. Two years into the design phase, the Massachusetts Historical Society sent out an archaeologist who discovered seven historical Indian workshop sites covering 30 upland acres.

"Those became preserve areas," Sanford says. "We had already done more than 30 routings for a 36-hole complex. Suddenly we had to go back to square one because, without those 30 acres, we could not get 36 holes. So we designed 27."

Space constraints

With 18 holes completed during the first two phases, one of the biggest challenges heading into Phase III was finding space to stockpile materials to complete Phase III.

"In Phase II, we only had 15 acres to clay cap," Kessener says. "In this last phase, we

had 58 acres. We have already capped 50 acres. That third nine looked like it had just a postage-stamp-sized area left for staging materials. We were able to utilize the range, using half [to store materials] at the start of the year and the other half to stage materials throughout the season. Then we built the three holes around the range. The last thing we did was close out the range. We have another six holes left to build and another eight acres left to cap and till. Plus we have another four acres of side slopes left."

Bastille says they didn't want to put staging materials on one of the holes they were going to build because they would have ended up moving it three times to get rid of it.

"Kessener was creative and is stocking materials on the last hole we will build and areas where we have already clayed and capped the landfill. Moving materials three to four times makes a project very expensive. This way we'll take materials off the piles on the last hole as we build the last few holes. When we get to that last hole, there will be a pile of material left that we'll spread over the final hole."

Additionally, to help reduce costs, which are usually a challenge on a project of this magnitude, Kessener manufactured his own loam by combining peat from a nearby reservoir with riverbank sand.

"We have produced for about \$9 per yard what would have cost us \$12 on the street," he says.

Government intervention

The governing agencies have been a challenge throughout construction, too, especially the state Department of Environmental Protection. Sanford says the project required 74 permits from a variety of government entities.

"We have worked with agencies at the federal, state and local levels," Kessener says. "Mostly it is the DEP monitoring things pretty closely. Some things are still up for approval. Our engineering firms and consultants spend a lot of time with them. I've spent less time with them over the past few years and been able to do what I do best, just build the damn thing."

On an angle

The most difficult aspect about maintaining the site was growing in and maintaining the 110 acres of steep side slopes.

"We didn't sod any of it, so we had to grow it all in," Bastille says. "We hydroseeded and had guys hand fertilize with those little whirlybirds you put on your chest. There was no way to get any equipment on there because of the slope. We had to fix the wash-

outs and grow-in with the weather. We didn't want to grow-in during thunderstorm season or the winter. We had that little window in the spring and from Labor Day to Halloween to try to get things growing the best we could. It requires a little more labor. And the side slopes only get mowed twice a year.

"Also, being on a landfill, we have to meet certain organic-content requirements within five years," Bastille adds. "So we're taking soil tests all the time to meet that 5-to-6-percent organics target."

Bastille purchased a special mower that's designed for steep slopes. The seat tilts, so the operator sits level, even on a 2½ -to-one-foot slope.

"It works great, although it takes awhile

to finish mowing," Bastille says. "We'll probably have to buy another one. It takes too long to mow 110 acres of side slopes with a machine that is just 92-inches wide."

Not only is cutting the grass difficult, growing it is tricky, too. Growing grass on very sandy soil required using more fertilizer than courses with a loamier growing medium.

"The benefits of sand are that it drains great, and I don't have any compaction problems," Bastille says. "But sand dries out faster, so we have to use more water, especially with high winds."

Environmentally friendly

Like Sanford and Kessener, Bastille also has had to work closely with government regu-

lators. Erosion control is an ongoing issue on the steep slopes because of wetlands and nearby houses. Bastille is testing the water constantly for nutrients and the methane gas produced underground by the closed landfill. The methane travels from about 100 wells through pipes to two 20-foot flares, where the gas is burned off.

"There are no candy-cane-shaped pipes to vent the methane like there are over a regular landfill," Bastille says, adding that the candy-cane-shaped pipes aren't aesthetically pleasing. "All our wells have manhole covers and mounds around them." GCN

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Photo: Granite Links Golf Club



Growing grass on very sandy soil required using more fertilizer than courses with a loamier growing medium.

Combating compaction

SUPERINTENDENTS TRY DIFFERENT AERATION METHODS

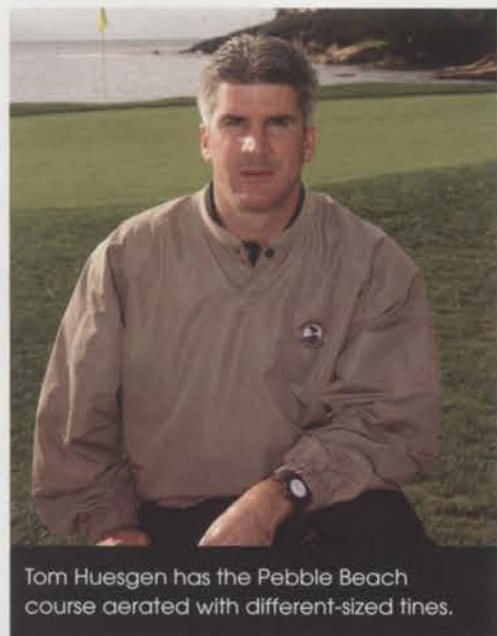
by
DAVID
WOLFF

Hheavy traffic on greens causes turfgrass stress that includes turfgrass wear and soil compaction. The No. 1 problem experienced on sand-based putting greens is the excessive accumulation of organic matter in the upper portion of the soil profile, according to University of Georgia researcher Bob Carrow. Compaction is a hidden issue because it affects the soil underneath the surface, altering its physical properties in a manner detrimental to turfgrass growth.

Aside from limiting traffic on greens, core aeration and sand topdressing are the two most effective means to control the content and distribution of organic matter in the upper zone. Several courses have modified traditional programs to achieve the conditions they want.

A change in strategy

One of the courses is Whistling Straits in Kohler, Wis. The staff there started to pre-



Tom Huesgen has the Pebble Beach course aerated with different-sized tines.

Photo: David Wolff

pare for the 2004 PGA Championship several years ago because it had to.

"Our cultural practices haven't changed much in the last few years," says Michael Lee, manager of golf. "The time to experiment is five years before the event, so we have time to get it right. We've been doing things a certain way for a couple of years, and it's been working. The last thing we want to do to prepare for a major championship is to change our programs at the last minute."

One of those practices, which has been slightly modified, is greens aeration, which has more than one purpose.

"Sometimes we aerate to relieve compaction, but for our sand-based greens, the goal is to remove soft, water-holding thatch," Lee says.

Standard quad-tine holders on aerators are modified to accept 1/2-inch tines instead of 3/4-inch tines. This changes the hole pattern from 2 inches by 2 inches to 1 inch by 1 inch. A larger hole and tighter spacing allow more material to be removed per pass. Whistling Straits superintendent David Swift estimates that about 10 percent of the thatch is removed with each aeration.

"Our program for greens is twice as aggressive in spring," Swift says. "As soon as we finish 18 holes, we topdress, turn around and do the greens again. We're removing about 20 percent of the thatch. We do this early enough in the year (early April) when we don't have any guest play. The greens will be 80 to 90 percent healed by the time we open later in the month. It's important to understand that greens that are double aerated heal in the same time period as single aeration. The distance the grass has to grow over the holes is the same for single or double aeration."

After aerating, the cores are blown from

the edge of the green to the center. Staff members push them into windrows using shovels, and then they are scooped up and loaded into utility carts.

"There are a number of ways to do it that might save more time, but we've found the best way is with people and shovels," Swift says. "This eliminates as much mechanical damage as possible and gives us the best quality."

The greens aeration is repeated in late summer or early fall, except that the machines make only one pass.

But this formula wasn't always in place. The formula took a few years to develop. In 2001, greens aeration was done in play, six greens at a time. The program was modified slightly in 2002 and last year was fine-tuned to the current system.

"We had great success aerating early in the year in 2002, so last year we double punched because the greens healed up so well," Swift says. "Trying to aerate in play is a drawn out, frustrating process for golfers and the staff. This program works best for everyone."

Swift credits the speedy spring healing to fertilizing in late fall.

"We call it our dormant feed," he says. "The plants are charged up and ready to grow right away in spring. We fertilize after we spray for snow mold and then give the greens a pretty good topdressing. This also protects them from winter desiccation because we get a lot of wind on the Straits courses. The greens came through in excellent shape this year."

And during summer, the greens are verticut at two-week intervals, sometimes weekly if the grass is growing aggressively. They also are topdressed lightly once a week with dry sand.

Fairway aeration

When a resort course shuts down even for

Photo: David Wolff

At Blackwolf Run in Kohler, Wis., fairways are aerated each spring and plugs are removed with core harvesters.





Blackwolf Run staff members push aeration cores with shovels into windrows, then the cores are scooped up and loaded into utility carts.

Photo: David Wolff

one day to aerate, the revenue loss can be significant. Management used to set aeration dates at the four courses that make up Blackwolf Run and Whistling Straits one year in advance and close each course for two days. This was always a gamble because of weather.

"Until six years ago, we used to do the conventional method of core aeration," Lee says. "We'd pull the plugs, leave them on the course and hope they'd dry. If we tried to break them up when it was wet, the fairways became mud slicks. If it was too dry, the cores hardened into little rocks. We'd have to aerate at just the right time, and that didn't always happen."

Fairways are aerated each spring, and plugs are removed with core harvesters. Some material that's still on the surface is dragged in with a keystone mat. Then blowers remove any remaining thatch.

Then the plugs are hauled to a building where they dry out during the summer. In the fall, a soil shredder pulverizes them, and the dust is put back onto the fairway. A major benefit of this aeration method is that

the soil is incorporated into the thatch.

"The soil contains microbes, which break down the thatch," Lee says. "So we want to incorporate this soil below the thatch layer. Over a period of years, we just keep turning the soil over so as not to end up with a strong thatch layer on top."

Ron Bierwirth, superintendent at Blackwolf Run, says this aeration method is much cleaner, too.

"Golf cars can drive on the surface right away, and golfers barely notice what we've done," Bierwirth says. "With the old method of trying to break up the plugs and drag them back in, the course would be disrupted for a week or two — longer if it rained. Although aerating fairways the way we do it now can take a month or more, at least we can pick the dates to get the best possible weather conditions. The most important benefit is that we don't have to close the course."

"We have a saying at the Kohler Co. that could apply to the way we approach our cultural practices: 'Doing the common in an uncommon way,'" Lee adds.

Daunting challenges

Across the country, preparing Pebble Beach Golf Links in Monterey, Calif., presents a set of challenges not found at many resort or tournament courses. Consider what superintendent Tom Huesgen deals with daily:

- The course is open 365 days a year and posts 65,000 to 70,000 rounds;
- The greens are the smallest of any professional tour venue, averaging 3,300 square feet;
- Annually, there are more than 40 significant tournaments and large corporate events, three professional tournaments and

the California State Amateur — Pebble Beach again will host the U.S. Open in 2010;

- Monterey Peninsula has dramatic climatic changes, and within the golf course there are several microclimates; and
- Water quality is poor, and the influence of the ocean presents additional sodium difficulties.

Still, Pebble Beach remains one of the best-maintained golf courses anywhere. How does Huesgen do it?

"One of the ways we deal with our heavy traffic is to alleviate stress on the greens," he says. "Last year we recorded 10 aerations. We do a big aeration twice a year using 5/8-inch tines, sweeping sand into the holes and across the surface. This is done in late March and late September. In between and during winter, we aerate with 1/4-inch tines. Sometimes we pull cores, but not always. At other times, we go out with solid tines."

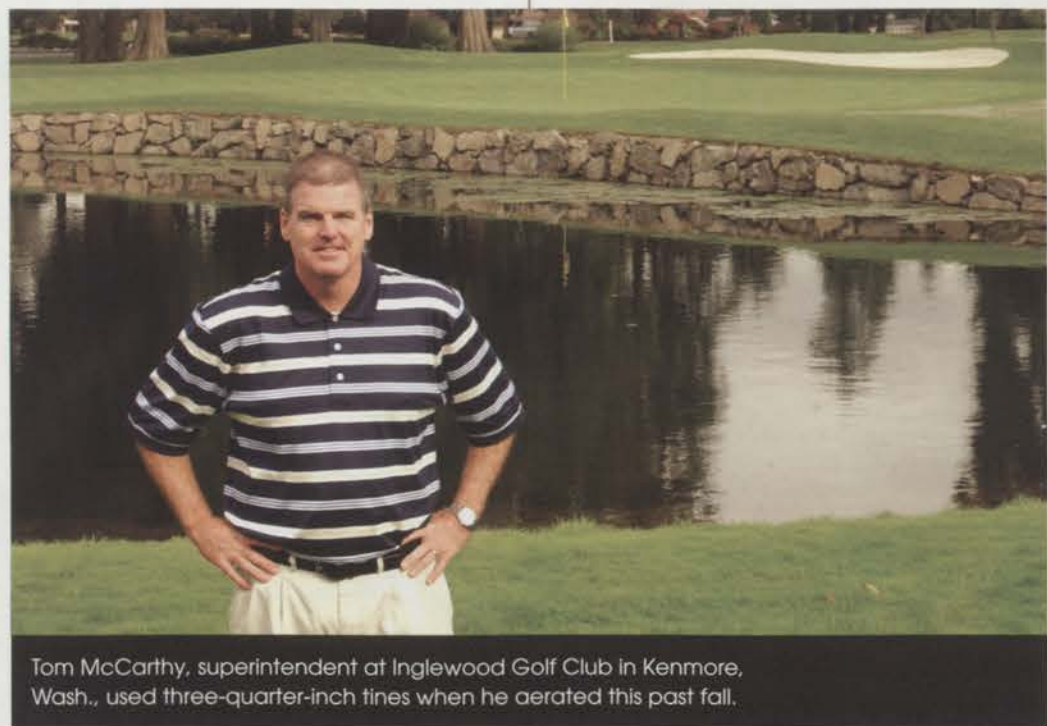
"We have no choice but to open up the greens regularly and allow gas exchange to take place," he adds. "This also allows potable water that we get once a month for five days to infiltrate the soil and help flush the sodium."

Also, every two weeks greens are verticut and topdressed. During the peak growing season from April to October, verticutters are used in between that period at a height approaching that of turf groomers.

"It just depends on stress levels and what events are coming up," Huesgen says. "The sand gives us a firm, ready surface and combats compaction."

Selling an aeration program

At Inglewood Golf Club in Kenmore, Wash., Tom McCarthy, director of golf



Tom McCarthy, superintendent at Inglewood Golf Club in Kenmore, Wash., used three-quarter-inch tines when he aerated this past fall.

Photo: David Wolff



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"Bigger holes give us a good infiltration rate, so when it rains, the water goes through the soil profile."

— TOM MCCARTHY

course operations, tried something new this fall when he aerated the greens. McCarthy used $\frac{3}{4}$ -inch tines.

"That's huge for us," he says. "We have a lot of play in the summer and mow our greens at 0.1 of an inch. With the summer heat and stress from play, we try to keep the greens pretty firm. But by September the wear and tear starts to show. This aeration opens up the greens to get more air in the root zone. Bigger holes give us a good infiltration rate, so when it rains the water goes through the soil profile."

The front and back nine at Inglewood each are closed for one day to complete the process. Recovery time can be three to four weeks.

"Not many superintendents do this because of golfer complaints, but I told the club this is what we have to do to get the conditions they want," McCarthy says. "It's one of those trade-offs. I'm not necessarily thinking about today when we aerate. Instead, I'm looking ahead to get through the winter and have a good start in spring. If golfers want to enjoy the course year-round they have to take their medicine. Cultural practices are just as important as fertility programs. They're the foundation of a well-conditioned course."

Aerate twice a year

Greens aeration at Inglewood is scheduled for April 15 and Sept. 15, weather permitting.

"I don't want to spread it out too far," McCarthy says. "Sometimes the golf calendar pushes it earlier in spring and later in fall, but then the fall recovery isn't as good, and fall really sets us up for spring. In the Northwest, we get a lot of rain, so when we aerate and get sand back in the holes there is good infiltration rates. The surfaces stay rela-

tively dry and firm. This equates to healthy turf and reduced disease pressure so we don't have to use as many chemicals."

McCarthy doesn't fertilize heavily. Ten days to one week before aeration, the staff puts down $\frac{3}{4}$ of a pound of nitrogen per 1,000 square feet.

"This gets the greens growing so when we aerate they recover more quickly," he says.

Next comes sand and calcium for the root zone. Ten days after aeration, the staff applies another $\frac{3}{4}$ of a pound of nitrogen.

"We want to regenerate the *Poa annua* leaf tissue because fall is a perfect time for growing grass here," McCarthy says. "There is high light intensity during the day and cool evenings for optimum soil temperature. If we get too far into the fall, soil temperatures drop, and light intensity decreases. That's why I insist on these dates." GCN

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



At Whistling Straits in Kohler, Wis., greens are aerated twice and heal just as quickly as greens that are aerated once, according to superintendent David Swift.

Photo: David Wolff



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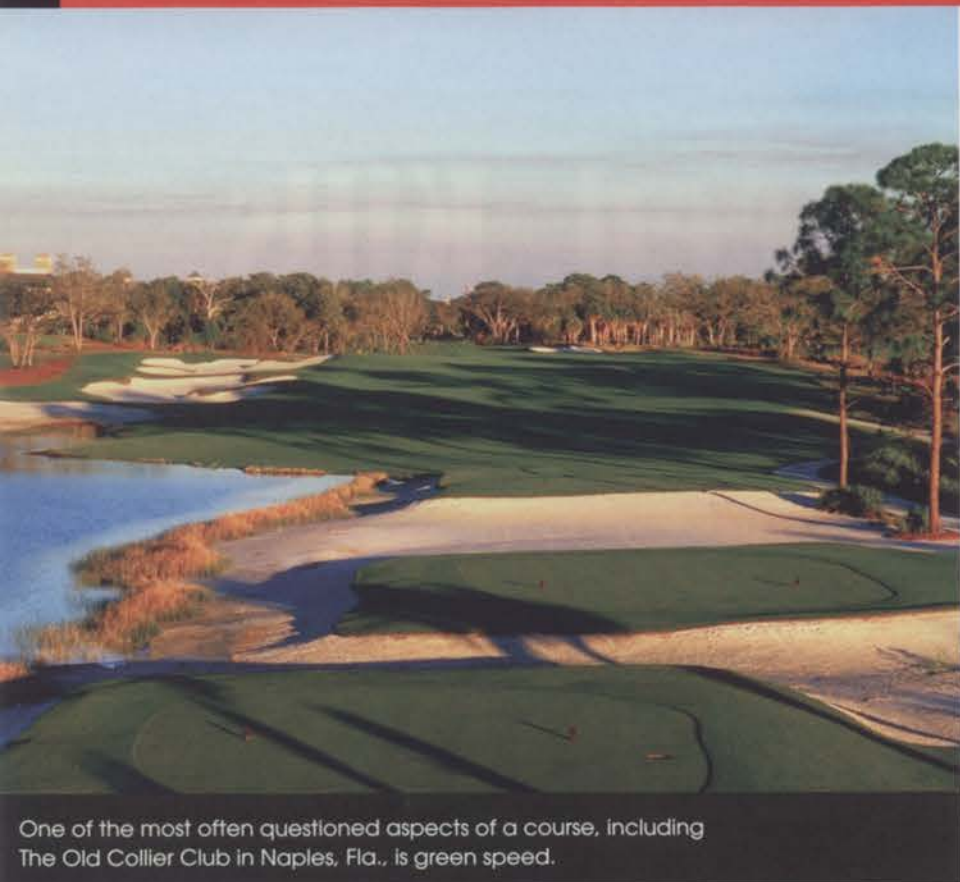


Photo: Jeannine Henebry

One of the most often questioned aspects of a course, including The Old Collier Club in Naples, Fla., is green speed.

**CHANGES IN THE GAME OF GOLF
ARE DRIVING THE CHANGES
IN SUPERINTENDENTS' APPROACHES
TO MAINTAINING THEIR COURSES**



At Interlachen Country Club in Edina, Minn., superintendent Matt Rostal deals with player demands by being up-front about course conditions.

Reacting to golfers

by
DEREK
RICE

By nearly all accounts, technology and television coverage have changed the game of golf. Players embrace new advances in equipment, and many jump on the bandwagon of the latest and greatest – especially whatever they see on television during a golf tournament. Improved clubs, balls, gloves and shoes have changed the way the game is played.

Technological improvements will continue as long as each new product conforms to U.S. Golf Association and Royal & Ancient Golf Club of St. Andrews standards because there's just too much money to be made for the manufacturers to ignore.

But it's not just new technology that's on superintendents' minds. Etiquette, green speed and course conditions are a few of the areas in which the game has changed

throughout the years. And superintendents have had to address these changes.

The perfect storm

Technology isn't the only aspect of the game that has seen dramatic changes during the past few years. Without a doubt, television coverage of golf has changed players' perceptions of course conditions. Often, players expect Augusta National conditions, even at their local municipal courses. These expectations are unrealistic. Sure, with the right budget even a cattle field can look like Pebble Beach, but the truth is hardly anyone has a budget to reproduce the pristine courses highlighted each week on the PGA Tour.

The expectation that a course will be in so-called perfect condition on a daily ba-



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Photo: Jeannine Henelby

The more perfect course conditions are the more likely small imperfections will stand out – like at The Old Collier Golf Club.

sis is perhaps the greatest bane for superintendents. But, at the same time, it can keep superintendents on their toes, according to Matt Rostal, superintendent at Interlachen Country Club in Edina, Minn.

“[That demand] challenges you to pay more attention and keep the golf course at those conditions,” Rostal says. “It’s easier for me because we’re only open about seven months a year compared with people down south who have to focus on that 12 months out of the year.”

However, at the same time, it can be challenging to meet every golfer’s expectations consistently.

“Everybody expects those tournament-type speeds day in and day out, and it’s harder for me to provide at an older country club,” Rostal says. “I’ve got old push-up greens with every kind of grass under the sun.”

One of the most often questioned aspects of a course is green speed, according to Tim Hiers, superintendent at The Old Collier Golf Club in Naples, Fla. While most golfers are at least somewhat familiar with the Stimpmeter, few understand the true intention behind it, which creates unrealistic demands for green speed, Hiers says.

“Mr. Stimpmeter said the Stimpmeter was never meant to measure speed; it was only meant to measure consistency,” he says.

With golfers demanding faster speeds, it creates a bit of a Catch22 for superintendents and the club.

“Ironically, most of the golfers can’t putt at the green speeds that they’re asking for,” Hiers says.

And it’s not just greens. Many golfers expect consistent lies in bunkers, perfect fairways, perfect tees and even perfect roughs.

“A rough’s a rough, and a bunker’s a bunker, but somehow, golfers have come to expect that a bunker lie is going to be almost as good as a fairway lie,” Hiers says.

Rostal agrees.

“The big complaint we have here is our sand traps and hazards,” he says. “They’re more of a manicured surface than they’re a hazard. Everybody expects the perfect lie in there.”

While the complaints often come from a vocal minority of squeaky wheels, Hiers says listening to them is a must because they might pack their bags and move to a club across town.

“People today are more mobile and belong to more clubs,” he says. “They have more disposable income and time, so a lot of people look at everything superficially. It would be sort of like flying an airline and running into a bumpy flight, then making your judgment about that airline on one bumpy flight.”

Perfecting course conditions also carries with it a certain paradox – basically, the more perfect the conditions, the more a small imperfection will stand out.

“If you play a golf course that’s got 10,000 weeds a hole every day, you get used to the 10,000 weeds a hole,” Hiers says. “But if someone comes in and eradicates 99.9 percent of those weeds and takes it down to 10 weeds a hole, all of a sudden those 10 weeds stick out a lot more than the 10,000 did. The better you get, the easier it is to get pickier and notice something that’s not perfect. You run your risk level higher the more perfect you make the golf course.”

Pick up the pace

Slow play has become part of the modern game. Increased course traffic and a decline of etiquette have contributed to this. Another factor that can lead to slow play is, ironically, improved maintenance of greens.

“I shoot for a 10 on the Stimpmeter every day, and I know that when it gets up to 11, the pace of play definitely slows down,” Rostal says.

Because Interlachen’s golf calendar is jam-packed for most of the seven months a year it’s open, slow rounds can negatively impact many players’ rounds any day.

“Pace of play factors into the player’s ex-

perience with a round,” Rostal says. “Here we try to post a round time of 3:45. When it’s busy, there’s a ranger moving people around and telling them they’re behind.”

Some suggestions for superintendents to deal with slow play include lowering the height of cut for roughs, slowing down greens and widening fairways, according to the Golf Course Superintendents Association of America.

Tournament setup

At one point, almost all courses will host some kind of tournament – ranging from the weekend four-ball to a PGA Tour event. Getting a course in shape for a tournament, particularly a professional one, can lead to this increased expectation for perfect conditions all the time. Rostal knows this well because Interlachen has hosted several top-tier events in its 95-year history – the most recent being the 2002 Solheim Cup matches. The club also will host the 2008 U.S. Women’s Open. This creates challenges for Rostal and his crew during setup and after the tournament.

“When you’re trying to get ready for all these events, you may have an off day when you don’t get to the bunkers or something like that,” he says. “Afterward, players expect those conditions – they expect the course to be perfect every day, and it’s just impossible.”

Ball-mark repair

Another aspect of today’s game that can put a strain on superintendents’ patience and/or budget is the lack of ball-mark repair.

Watching the professionals on television, one will notice many of them repairing their ball marks by putting their repair tool into the ground and twisting. However, as any superintendent knows, that’s not the proper way to repair a ball mark – in fact, it can cause more damage than the mark itself. But try telling that to the average weekend warrior who mimics everything he sees on tele-

Advice for dealing with golfer demands

- Do the best you can
- Be realistic
- Use common sense
- Keep up to date with practical technology
- Ask for help
- Find and retain a good staff
- Communicate

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Responsible Industry
for a Sound Environment



Photo: Jeannine Hennebry

At The Old Collier Golf Club, superintendent Tim Hiers says some golfers expect perfect bunkers, fairways and even roughs.

vision in the eternal quest to shave one or two strokes off his round. And that includes twisting the tool when he repairs ball marks.

The Golf Course Superintendents Association of Northern California would like

to change that. In September 2002, the GCSANC began distributing ball-mark repair tools sheathed in a business card-sized folder. Printed on the folder are instructions for properly repairing ball marks, along with explanations about the dangers of improperly fixing them – which are often worse than an unrepaired mark.

“If repaired properly, the surface will restore more quickly to its original condition,” says Bob Lopic, superintendent at Orinda (Calif.) Golf Course and honorary president of the GCSANC. “Golfers with good turf etiquette improve the experience not only for themselves, but for those who follow.”

The GCSANC started the program as a means of highlighting its Ball Mark Repair Week, which began in the 1990s. During that week, superintendents promoted proper repair techniques at their courses. Lopic says the plan was for the week to be a one-time event, but it has evolved into an annual occurrence with more than 10,000 ball-mark repair tools distributed throughout Northern California.

Last August, the GCSANC joined with LinkUp2Golf’s player-development program. Through the program, the association provides its ball-mark repair tools to golfers who participate in clinics taught by the PGA and the LPGA professionals throughout

Northern California.

This new alliance is aimed at nipping the problem in the bud by reaching out to players as they are introduced to golf, which Lopic says is the best time to reach them.

“There’s no better time for golfers to learn about ball-mark repair than when they are new to the game,” he says.

Communication is key

Communicating course conditions to golfers is a way to help shape golfers’ expectations. One way Rostal deals with player demands is to be up-front with them about course conditions daily. He can do this because Interlachen’s tee time reservation system is completely Web-based and runs through foretees.com. On Interlachen’s page, Rostal posts a daily briefing about green speeds, weather conditions and anything else that might affect a player’s outing.

“I update green speeds and course conditions each day so people who are coming in can check that and see where they are,” he says. “If green speed is 8, I’ll put them at 8 – I won’t lie about it.”

Honesty is the best policy for communication, he says.

“Even if you have something unforeseen happen – if you lose a green or a fairway or two – the best thing you can do is always just let everyone know what has happened and what you’re going to do about it,” he says.

The daily update also can be a helpful tool for inclement weather or for late in the season.

“Sometimes in the fall we’re just mulching leaves – we’ve got 2,000 trees here – and we don’t have time to do much of anything else, so I let golfers know that,” Rostal says. “I also update weather conditions and what it’s done to the course. I just want them to know what to expect when they get to the course.”

Additionally, using the Internet has been a great experience for Rostal because of the ability to post timely information.

“That’s one thing that’s better today is that everybody tries to communicate so much better, and there’s more efficient ways to do it,” he says.

Hiers also cites communication as the key to a good relationship between the maintenance staff and players.

“Part of good communications is consistent, constant communication that’s brief and to the point,” he says. “Nobody’s going to have the time to read long dissertations with words they don’t understand. If you’re constantly showing key people what’s going on, communicating ahead of time, that gives you the best chance.” GCN



Photo: Interlachen Country Club

Preparing a course, such as the Interlachen Country Club, in shape for a tournament can lead to golfers expecting perfect conditions.



THE GLOVES ARE OFF.

Because of activists, extremists and misinformed politicians, consumers are questioning whether the products and resources (such as water) used to care for their lawns, landscapes and other green spaces are a waste—or a harm to the environment. Yes, legislation and regulations have been throwing the green industry some rough punches. And we're about to start fighting back.

Project EverGreen is an alliance of green industry associations, companies and professionals dedicated to educate the public, protect the green industry and grow our business. It was created in response to unfavorable regulations in many parts of the United States and Canada. If the services our industry professionals offer are restricted, regulated or made illegal, everyone will lose revenue and customers.

Help Project EverGreen educate consumers on the environmental, economic and lifestyle benefits of green spaces. To make a contribution, volunteer your time or find out more information, call **1-877-758-4835** or visit **www.projectevergreen.com**.



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Creative cultural practices

EQUIPMENT AND RESEARCH MAKE
THATCH REMOVAL ON GREENS EASIER

by
KEVIN
J. ROSS,
CGCS

With the advent of newer bentgrasses about 20 years ago, thatch management has come to the forefront of today's greens management. Once the barrier of using PennCross was broken (primarily by Providence and SR1020 in the mid-1980s) and the use of the new superbents became more popular, the concern about different management programs seemed to revolve around the thatching potential and management of the thatch make-up.

Then in 1995, the concerns grew deeper with the release of the denser A and G series bentgrasses. So superintendents started to think more creatively about managing these turfgrasses because of the initial concerns that the A and G series would become thatchy and impossible to manage.

These thatch problem concerns prompted equipment manufactures to re-

The development of "superbents" for greens moved thatch management to the forefront of superintendents' agronomic programs.

Calculating SARI for 0.390-inch inside-diameter tine on 1-inch by 1-inch spacings

area of a circle = $\pi (3.14) \times (\text{radius})^2$
square inches from spacing used

$(3.1415) \times (0.195)^2 = 0.119$ square inch
spacings 1-inch by 1-inch = 1 square inch

$\frac{0.119 \text{ inch}}{1.0 \text{ inch}}$
= 11.9% SARI

spond by developing specific machinery to address the potential problem. Presently, most manufacturers offer aerification equipment that reduces tine spacing as close as one inch. This close aerification spacing was termed quad-tine setup and originally was designed for use with quadratines (one-quarter inch). Initially, the quad-tine setup using quadratines became a popular management technique for superberts. Superintendents liked the benefits of aerification without the drawbacks of disrupting the playability of the greens with these small tines. The popularity of this method became so great that some courses were doing this monthly.

Dethatching developments

Shortly after quadratine use became popular, possibly the two most significant developments in thatch management occurred: the development of larger diameter tines to fit a quad-tine setup and the introduction of the Graden dethatching unit to the United States. These developments have changed the way superintendents manage their cultural practices on greens.

The Graden dethatching unit is probably responsible for the latest agronomic buzz term – “surface area removal/impacted.” This term came to light as the use of the Graden dethatching unit increased. Superintendents began calculating the difference between quadratine aerification and the dethatching unit to determine which method would have the greatest impact on greens.

Next came an article by Chris Hartwiger and Patrick O'Brien that was published in the July/August 2001 issue of the USGA Green Section Record. The article, “Core Aeration by the Numbers,” stated that 15 percent to 20 percent of the surface area should be impacted per year on the green. The 15-percent-to-20-percent guideline wasn't based on scientific research. It was based on field experience through numerous visitations by U.S. Golf Association agronomists. The article included a table that compared various tine sizes and spac-

ings of the aerification procedure, along with the dethatching blade thickness and spacings to calculate SARI.

As a result, superintendents now are focusing on SARI instead of just guessing at their aerification procedures. Superintendents think about thatch management much differently than they did before the USGA article was printed. However, information in the USGA table was misleading slightly. The table presenting tine sizes tended to overstate the amount of true SARI because of how the diameter of the hole was determined.

Size it up

When selecting aerification tines and calculating SARI, the most important consideration is the inside diameter of the tine. For example, a $\frac{5}{8}$ -inch tine doesn't make a $\frac{5}{8}$ -inch hole, and it doesn't remove a $\frac{5}{8}$ -inch plug. Aerification tines have a cookie-cutter effect when operating. This is why the inside diameter is the critical measuring area when calculating SARI. The tine also tends to push or compact the turf outward in a circular direction as it enters the ground.

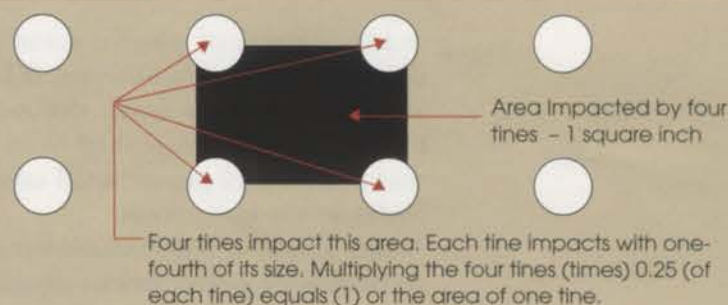
If a $\frac{5}{8}$ -inch tine made a hole of equal size, it should be possible to drop (or slightly push) the same size tine into that hole. This can't be done. In fact, there might be a release of some lateral compaction, which might result in the hole diameter being smaller than that of the tine's inside diameter. For example, the inside diameter of a tine sold as a $\frac{5}{8}$ inch – to fit a quadratine setup – actually measures 0.390 of an inch. If the outside diameter of 0.625 of an inch ($\frac{5}{8}$ inch) is used to calculate SARI, the per-

centage will be considerably overstated.

Additionally, when 1-inch-by-1-inch spacings are used, the inside diameter (.0390 of an inch) equals 11.9 percent SARI. Using the outside diameter (0.625 of an inch) equals 30.68 percent SARI. This calculates to 61 percent less SARI when using the correct inside diameter measurement instead of the incorrect outside diameter measurement.

One of the main points to remember about aerification tines is that they vary greatly from one company to another. So it's critical to select tines based on the inside diameter, which generally isn't advertised. Presently, there's one company selling tines using three

Calculating surface area for 0.390-inch inside diameter tine on 1-inch-by-1-inch spacings



criteria: inside diameter, outside diameter and wall thickness. This could be the standard in the future and how superintendents purchase tines.

Wear it down

Another factor that greatly affects SARI is tine wear. If a superintendent aerified nine greens and did them in order (one through nine), the first green would be much different from the ninth. For example, using a 0.390-inch inside-diameter tine starting on the first green, the SARI would be calculated at 11.9 percent. That same tine, after aerifying eight greens, would measure 0.50-of-an-inch inside diameter on the ninth green or 19.6 percent SARI. This is a drastic 40 percent increase throughout the course of nine greens.

So, if greens are aerified in the same order every year, year after year, the thatch composition would vary greatly from the first green to the ninth green. To equalize SARI during the process, the reverse order needs to be performed with each aerification. This will allow a more even SARI from green to green.

Maintaining an edge

The Graden dethatching unit creates another factor that complicates the amount of SARI on greens: The blades wear throughout time,



Photo: Kevin Ross

Using the inside-diameter measurement, accurate SARI can be calculated.



Photo: Kevin Ross

The Graden dethatching unit might be responsible for starting the agronomic buzz term "surface area removal/impacted."



Photo: Kevin Ross

With the development of larger-diameter tines using close 1-inch spacings, surface area removal/impacted can increase dramatically.

and the amount of material removed reduces. Remember, just like tines, all blades are different. Most 2-mm dethatching blades actually measure 0.10 of an inch thick, which is 10 percent SARI using the blades on one-inch centers.

After 15,000 to 20,000 square feet of use on sand-based greens, various superintendents reported the SARI is reduced about 50 percent. This makes calculating true SARI even more difficult. Keeping sharp blades will benefit only the dethatching result. This can be costly because blades aren't cheap. One way to maintain a sharp edge is to invest in a carbide sharpening stone and face the carbide tips every 15,000 square feet.

It's the matter

Some of the latest research that deals with organic matter build-up and relates directly to SARI on greens is by Dr. Robert Carrow of the University of Georgia. Funded by a research grant from the USGA, Carrow's work — titled "Surface Organic Matter in Bentgrass Greens" — determined a level of organic matter in the upper 2-inch zone of 4 percent as a breaking point for green performance. Carrow cites greater than 4-percent organic matter should send a red flag to superintendents indicating potential problems could be on the horizon.

The research shows, however, that the 4-percent guideline isn't a steadfast rule. Carrow indicates that in cooler climates greens might do fine above 4-percent organic matter; but in the southern zone, it can be critical. This is a critical finding because it gives a number to use when designing cultural practices. It lets superintendents know if they need to be aggressive or not in an aerification program.

A numbers game

So, where do these underlying factors leave golf course superintendents concerned about SARI? First, Hartwiger and O'Brien should be commended for such a great food-for-thought article. Their guidelines of 15-percent-to-20 percent SARI gives superintendents some numbers to communicate to green committees or owners about why the dastardly deed of aerification must be performed regularly.

Then, superintendents should realize that true calculations aren't as easy as putting tines on and away they go.

Thirdly, kudos need to be given for Carrow's research identifying the 4-percent organic

matter guideline in the upper 2-inch zone.

Maybe this is how superintendents should base their aerification programs in the future when considering how much SARI is needed. However superintendents choose to manage their thatch, it's nice to know that managing these superbents (and other new bents years from now) will be much easier thanks to aerification and dethatching equipment and solid research. GCN

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Photo: Kevin Ross

Equipment manufacturers have responded to marketplace demands with aerifiers that offer tight spacings.



TurfTech Bio-Min mineralizer and bioinoculant

- Combines three agronomic tools in one formula
- Reduces fertilizer requirements, suppresses common turfgrass pathogens and improves water infiltration
- Micronized volcanic rock powder delivers more than 60 trace elements not found in conventional fertilizer
- Strengthens plant cell walls and activates enzyme activity
- Helps turfgrass resist damage from diseases, mowing, frost and drought
- Can be applied with ground spray rigs or through irrigation injection systems
- Should be applied at four-week intervals during the growing season

Soil Technologies

Circle 200 on reader service form



EZ Tab polymeric surfactants

- Designed for in-line hose applications
- Specially formulated to provide a rescue treatment for localized dry spot
- Packaged in a disposable container that eliminates the need for handling tablets
- Covers 12,000 to 18,000 square feet of turf
- Lasts as long as 40 minutes

Precision Laboratories

Circle 201 on reader service form



Talpirid mole bait

- Designed, developed and scientifically proven to kill moles
- Proven effective in field and laboratory testing
- Mimics a mole's natural food source – the size, shape and feel of an earthworm
- Enhancers help ensure attraction and acceptance of bait
- One worm contains a lethal dose of bromethalin
- Works quickly – can kill in 24 hours

Bell Laboratories

Circle 202 on reader service form



Tee time reservation software

- Controls available tee times
- Eliminates uncontrolled off-course reservations, double bookings and tee times that have gone unnecessarily unscheduled
- Allows course operators to create and track reservations, including a reserver name and a note for each group, as well as detailed player information.
- Integrates completely with other program modules
- Provides access to customer profiles and credit card information when taking reservations, and makes automatic updates to customer histories

Next Evolution Technologies

Circle 203 on reader service form



Turf Tiger Cub topdressers

- 1.8- and 2.3-cubic-yard capacity
- Saber Tooth beater provides increased application speed without compromising spreading precision
- Beater allows application of material, even if it's wet and clumpy
- Applies light coverage, such as for lime or light topdressing or heavy coverage as much as one inch in a single pass for materials such as compost
- Disperses grass clippings

Millcreek Mfg. Co.

Circle 210 on reader service form

OxyGrow biological inoculant

- Combines oxygen, calcium and mycorrhizae to help turf establish healthy root systems
- Slow-release oxygen overcomes compacted or anaerobic soil conditions
- Calcium helps build root and turf cell walls, increasing pathogen resistance
- Eight species of mycorrhizae fungi increase root surface area, boosting water and nutrient intake and drought resistance
- Results in faster grow-in with new turf seed, reduced turf stress, and a reduction of compacted soils and the development of black layer

BioSafe Systems

Circle 222 on reader service form



Organic Gem liquid fish fertilizer

- All-natural biostimulant
- Enzymes break down nutrients locked in the soil, giving a composting effect and bioactivity
- Cold processing and enzymatic digestion are the keys to a biostimulating effect
- Acts as a deterrent to powdery mildew
- Low odor
- Nonleeching
- Certified organic

A T Sales Associates

Circle 221 on reader service form

Companion soil amendment and microbial inoculant

- Rhizosphere bacteria spores colonize roots hairs, increasing root mass and length
- Increases beneficial populations, reducing the use of chemical fungicides
- Can be mixed with fungicides

Growth Products

Circle 223 on reader service form



Nematac S biopesticide

- Controls damaging mole crickets using a natural enemy instead of chemicals
- Microscopic nematodes become active when applied to a soil profile and use mole crickets as hosts
- Nematodes enter inside the mole crickets and release bacteria, which is lethal to the pest
- Mole cricket become a food source for the nematodes, which will reproduce and continue to attack the mole crickets infesting the turf

Becker Underwood

Circle 225 on reader service form



Biological wastewater treatment systems

- Biological treatment turns organic contaminants such as oil, grease, herbicides and pesticides into carbon dioxide and water
- Mixed blend of fixed bacteria eliminates odors within the system
- Available for recycle or discharge operations
- Available in stainless-steel or in a marine-grade aluminum tank

Mi-T-M Corp.

Circle 224 on reader service form





Enviro-culture shock treatment

- Reduces nutrient loads in water, preventing unsightly, potentially toxic algae blooms
- Increases dissolved oxygen levels
- Balances pH
- Eliminates pathogenic bacteria
- Improves water clarity and reduces sludge levels
- Key patented proprietary bacterium *L. Plantarum-OM* is beneficial to aquatic environments
- 100 percent food-grade materials are safe for humans, animals and the environment

Bio-Energy Systems

Circle 228 on reader service form



Microbe lift/biological mosquito control

- For use on ponds and other water features
- Kills mosquitoes before they become breeding, biting adults
- Can be applied to areas that contain aquatic life, fish and plants
- Doesn't change water's appearance
- Safe for use around humans and animals

Ecological Laboratories

Circle 227 on reader service form

Quelant-minors biofertilizer

- L-amino acid biofertilizer
- Formulated for foliar application and absorption to prevent and correct micronutrient deficiencies of turfgrass and other plants
- Provides turfgrass with readily available Mg, Mn, Fe, Zn, S, B, Mo, and L-amino acids directly through the foliage
- L-amino acids chelate micronutrients and enhance their absorption and translocation within the plant, as well as providing maximum protection from stress

Nutramax Agriculture

Circle 229 on reader service form



Closed-loop equipment washing system

- Model 4000-GC3
- All-natural bioremediation technology cleans and reclaims equipment wash water
- Three wash stations
- Delivers wash water at 25 gallons per minute
- Continuous pressure stream of 30 to 50 psi
- Naturally occurring, fixed film microbes, create a "living filter" to remove chemicals, phosphorus, nitrates, pesticides, oil grease, antifreeze, or any other organic contaminants from the wash water
- Conserves as much as 90 percent of water for more important uses such as irrigation

ESD Waste2Water

Circle 226 on reader service form

Barrier nets

- Designed for driving ranges
- Effective for protective fence applications
- Made of durable, heavy-duty monofilaments
- UV stabilized
- Doesn't unravel when cut
- Dark green color blends with most landscapes

U.S. Netting

Circle 204 on reader service form



Aegis fence

- Made from ornamental steel
- Uses the ForeRunner rail, a high-strength, double-walled shape that provides greater load-bearing capacity
- Protected by PermaCoat — a thermally bonded double layer of zinc-rich epoxy and no-mar polyester
- Powder coating formulated for adhesion, corrosion, UV and abrasion resistance

Ameristar Fence Products

Circle 206 on reader service form



PAK golf netting

- Rugged design increases longevity
- Made of UV-resistant, high-density polyethylene
- Lightweight
- Strong and rip resistant
- Helps protect nearby people, cars and homes from stray golf balls

American Clay Works & Supply Company

Circle 207 on reader service form



Golf nets

- Contains balls and prevents accidental impacts
- Manufactured in the United States

M. Putterman

Circle 208 on reader service form



The Shuttlemaster

- Designed to provide practicality and convenience
- Designed with standard two passenger, side-by-side seating configuration
- Uses reinforced tubular steel chassis with smooth steel body
- Incorporates 36-volt drive train with solid state controls that provide speeds as fast as 12 mph while carrying as much as 500 pounds
- Lightweight body design is turf friendly

Taylor-Dunn Manufacturing Co.

Circle 209 on reader service form





Western Model 400

- Features adjustable driver seat back
- Includes built-in ball and beverage holder on dash
- Designed with built-in ice chest for additional storage
- Custom steering wheel with scorecard comes standard
- Electronic speed controller comes standard
- Includes fully-automatic charger
- Features headlights and tail lights

Western Golf Cars

Circle 215 on reader service form



Hillcrest AB with autobrake

- Electronic controls with solid-state reliability
- Energy-efficient system to preserve battery power
- Ergonomically designed for easy one-hand operation
- Fold-up bag support adjusts to fit
- 304-grade stainless-steel tubing for durability
- Permanent magnet motor provides high-torque with no maintenance
- Enclosed drive train
- 4-inch-wide tires are molded of puncture-proof, polyurethane

Kangaroo Nevada Co.

Circle 214 on reader service form



Morey Perennial flag sticks

- Inverted hourglass profile turned from ash and hickory hardwoods
- Five to 8-foot sticks have a wood body sized 9/16 inch at the flag mount, one inch at midpoint and near 3/4 inch at the metal connector that couples to a 1/2-inch fiberglass base rod
- Eight-inch sticks have longer base rod
- Practice sticks have 9/16-inch ends with a one-inch center
- Base cup available in black powder coating or natural gray zinc color

Cheesebrough Wood Rakes & Specialties

Circle 216 on reader service card

Tournament golf flag poles

- Corrosion resistant and withstands harsh weather
- Base color is impregnated throughout each pole
- Polyester-fiber surface veil to minimize slivering
- Come with aluminum bottom ferrule, top ferrule and acorn nut
- Suits swivel or tube type flags

Bayco Golf

Circle 218 on reader service card

Practice green sticks

- Half-inch flagsticks are available in six color configurations
- Available in 7-foot, 7.5-foot or 8-foot heights
- Available as aluminum ferrule, stainless steel ferrule and aluminum grooved

Prestige Flag

Circle 220 on reader service card



(continued from page 33)

the golf professional and the general manager to communicate to the superintendent the needs of the customer.

If the greens are bumpy and customers make comments to the golf shop staff, we

mined by their words, and now you have hard feelings.

If everyone is working together and if the golf shop knows there's an issue from the customer, when they call the superintendent, they're not going to get an angry guy.

"Private country clubs don't know our profession that well, and the people making the hiring decisions tend to hire based on past work experience."

expect the comments to be shared with the superintendent. I do not allow general managers or golf professionals to tell a superintendent how to remedy a maintenance problem, but they are required to bring the issue to the superintendent and have him provide them with information to be shared with our customers regarding how the issue will be resolved. The golf professional must be an advocate for the customer with regard to course conditions, but it is the responsibility of the superintendent to determine the actions to be taken. The superintendent is the one with the technical knowledge to determine how to best resolve turf condition issues.

Conversely, the superintendent is expected to inform the golf shop staff when the carts are not clean or the food service is causing customers to complain. The superintendent is not to tell the pro shop how to resolve the cleanliness problem or tell the food-and-beverage staff how to deal with food problems, but they must communicate customer related issues to the people we pay to solve them.

Q Are their management companies that don't work that way?

The traditional thinking is departmental. Superintendents are department heads. They might not be supported when they raise issues related to other departments. You can often have wars existing between the superintendent and the golf shop because there is a lack of coordination in serving the customer. The golf shop is going to hear the turf conditioning complaints, and yet they're powerless to fix them. Without good information from the superintendent they are not able to communicate with our customers effectively and will catch the brunt of any dissatisfaction. They get tired of this quickly and will often point the finger at maintenance implying incompetence. The superintendent is under-

They're going to get a guy who's told what's going on and what the questions are. He's going to give that golf pro what he needs to deal with his customer, and the superintendent is going to care about that customer because they are trained to care.

Q Do management companies tend to manage maintenance budgets more efficiently?

Throughout the years, I have looked at a large number of golf course maintenance operations. Some are well run with tight controls that produce similar results to ours, without the benefits of our buying power. Others are poorly managed with purchases made on short notice and with high service demands.

Management companies will consistently manage budgets closely. There's a lot more scrutiny. Staffing levels and purchasing decisions are determined based on their ability to fulfill the business plan.

I have a large family, and when we wait until 5 p.m. to think about what we are going to have for dinner, we have limited choices. The same is true with operating budgets. If the golf course maintenance plans are made before the budget process, then opportunities are created to buy efficiently. If decisions are made at the last minute, then it is going to cost more.

In our company, the budget is the cost of a plan, and the budget is not approved without a plan. The plan has to produce the turf quality that will make us the best in a market consistent with the resources available.

Q Would you recommend a younger superintendent work for private clubs then go on to a management company or vice versa?

If you want a career maintaining high-end

private clubs, it's important to go to work for them as soon as possible and stay there. A young person should intern at private clubs, then become an assistant and then a superintendent. It's not an effective strategy to work at a municipal golf course with the hope of someday working for a high-end private facility. You can work at a high-end daily-fee course and move to a private club, but it has to do with who's doing the hiring.

Private country clubs don't know our profession that well, and the people making the hiring decisions tend to hire based on past work experience — someone who has worked successfully at a club similar to theirs.

Q What if a management company is running a high-end course?

A superintendent can move to a management company operating a high-end course if they have the skills and abilities required to be successful in that environment. In this circumstance, the management company will be an employer that can discern your abilities and will not hire on resume alone, but will focus primarily on your competency. They can look at you and determine whether your skills and abilities meet their needs. When a knowledgeable person hiring a superintendent determines the needs of the facility, the technical strengths that a successful superintendent would need at his facility are made apparent.

A career move for a superintendent isn't dependent upon whether the facility is operated by a management company. The issue is more personal. What is your definition of job satisfaction and what opportunity provides you the ability to obtain it?

Determine where you want to go with your career. Then identify what career path will allow you to acquire the skills and abilities that the owners of that business will want from you. Then obtain positions working for people that will allow you to acquire those skills and abilities. That might or might not be a management company.

Q So there are good opportunities in both cases?

Sure. Every golf course represents a good opportunity for someone. Good career opportunities are most often found when the superintendent has sufficient self-awareness to know what leads to job true satisfaction. Every position has its down sides too, so it's important to know what you want to avoid as well. GCN

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Duinick Bros Golf will be conducting interviews at the 2005 GCSAA Annual Convention in Orlando, FL February 10-12.

Duinick Bros Golf has career opportunities available for those who are experienced in the golf course construction industry, or those wanting to start a career in the golf course construction industry.

Duinick Bros Golf offers a competitive benefits package. Compensation is based on experience. All employees will be required to travel extensively.

If you are interested in making a career in the golf course construction industry, send resumes to the following address: Duinick Bros Golf, Attn: Lisa, PO Box 208, Prinsburg, MN 56281. An application can also be filled out through the Duinick Bros Golf website at www.dbigolf.com or through email at lisah@dbigolf.com.

Please note on your application if you will be attending the GCSAA Trade Show in Orlando on February 10-12.

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BY THE NUMBERS

\$500,000

The gross revenue for the Carolinas Golf Course Superintendents 2004 Conference & Trade Show in Myrtle Beach, S.C.

\$6,000

The value of a week-long golf vacation for two to Scotland won by Gene Scarborough, golf course superintendent at Santee Cooper Resort in Santee, S.C., at the Carolinas Golf Course Superintendents 2004 Conference & Trade Show.

202

The number of companies that bought exhibit booth space during the Carolinas Golf Course Superintendents 2004 Conference & Trade Show in Myrtle Beach, S.C.

The number of pieces of motorized equipment and trailers in the maintenance department at Pinehurst Resort in North Carolina.

904

2.6

The number of trips golfing travelers averaged during the past year, according to a recent study by the Travel Industry of America. Ten percent golfed on six or more trips.

Thirty-four percent went on either two or three golf trips during the past year. Sixteen percent of travelers who played golf said golf was the most important reason for taking the trip.

12,000

The square footage of the Building of the Green Solution Center at the Golf Industry Show.

336

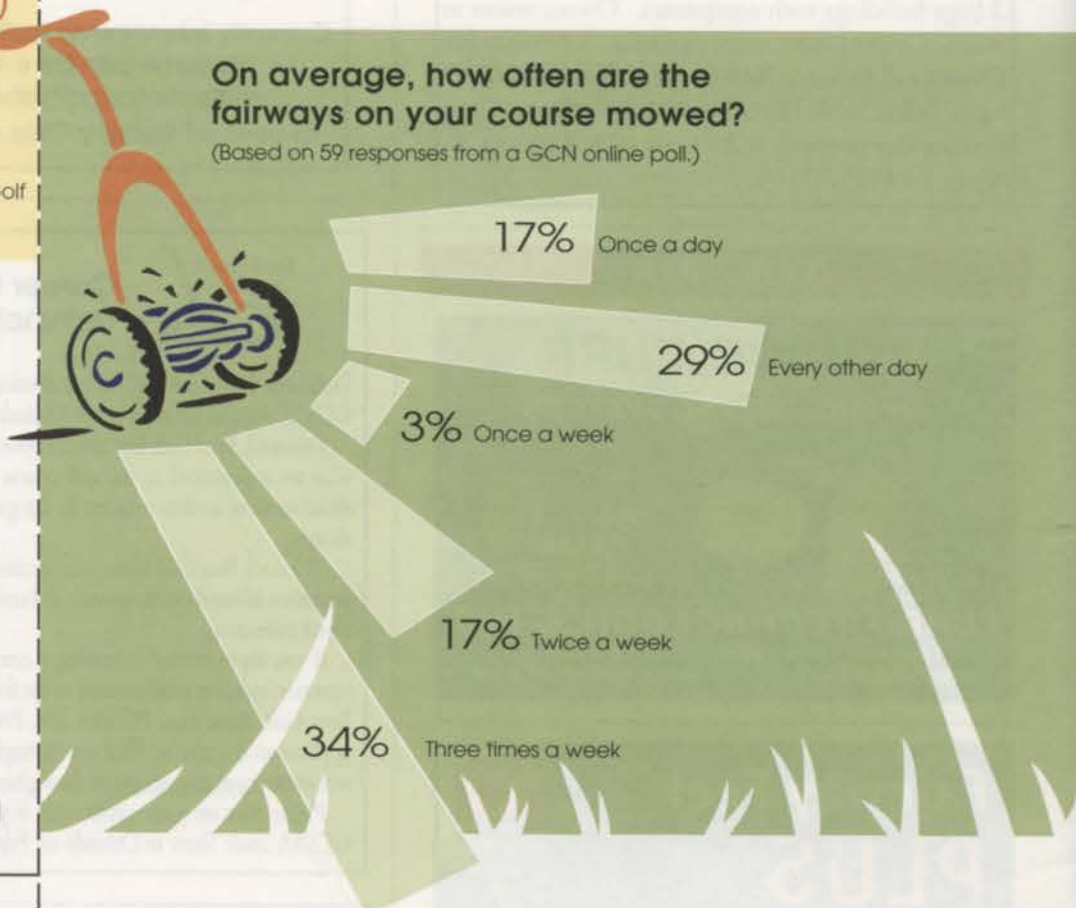
The number of golfers who attended the 2004 Carolinas GCSA golf championship at the Dunes Golf & Beach Club in Myrtle Beach.

The number of seats filled in education seminars at the Carolinas Golf Course Superintendents 2004 Conference & Trade Show in Myrtle Beach, S.C.

1,220

On average, how often are the fairways on your course mowed?

(Based on 59 responses from a GCN online poll.)



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QUOTABLE

"If I can please 70 percent of the members, I'm OK. I'm not going to please everybody." — **David Webner**, golf course superintendent at Westwood Country Club in Rocky River, Ohio.

"When I address a complaint, I don't defend myself and give excuses because it just becomes an argument. Instead, I ask what can we do to make it better." — **Brian Mabie**, golf course superintendent at Firestone Country Club in Akron, Ohio.

"Mr. Stimpson said the Stimpmeter was never meant to measure speed; it was only meant to measure consistency," — **Tim Hiers**, golf course superintendent at The Old Collier Golf Club in Naples, Fla.

"Nine out of 10 people will listen to me with an open mind. My place isn't to say anything to members, it's to listen to their complaints." — **Jack MacKenzie**, golf course superintendent at North Oaks (Minn.) Golf Club.

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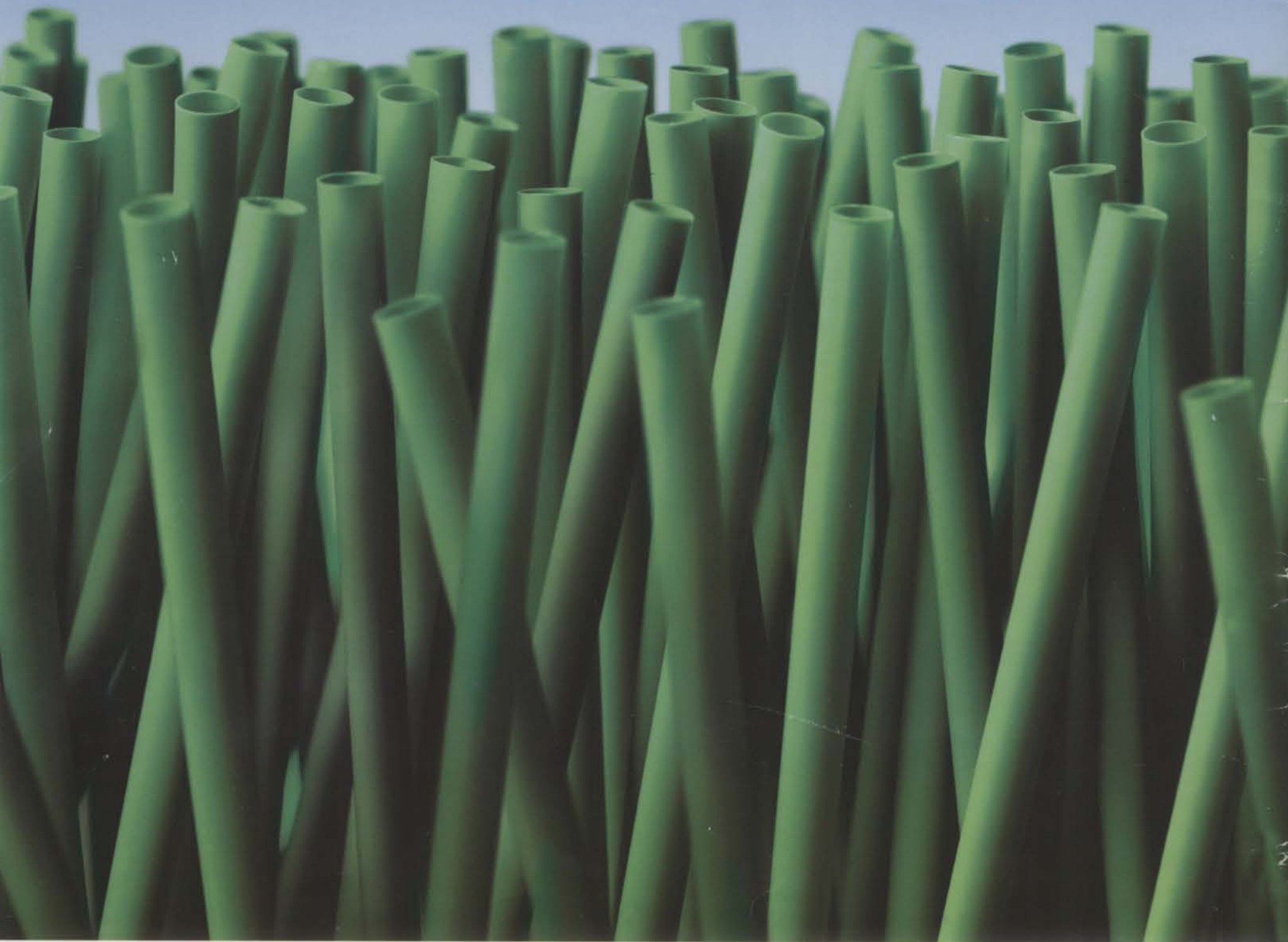
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