October 2005

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INSIDE

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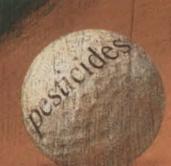
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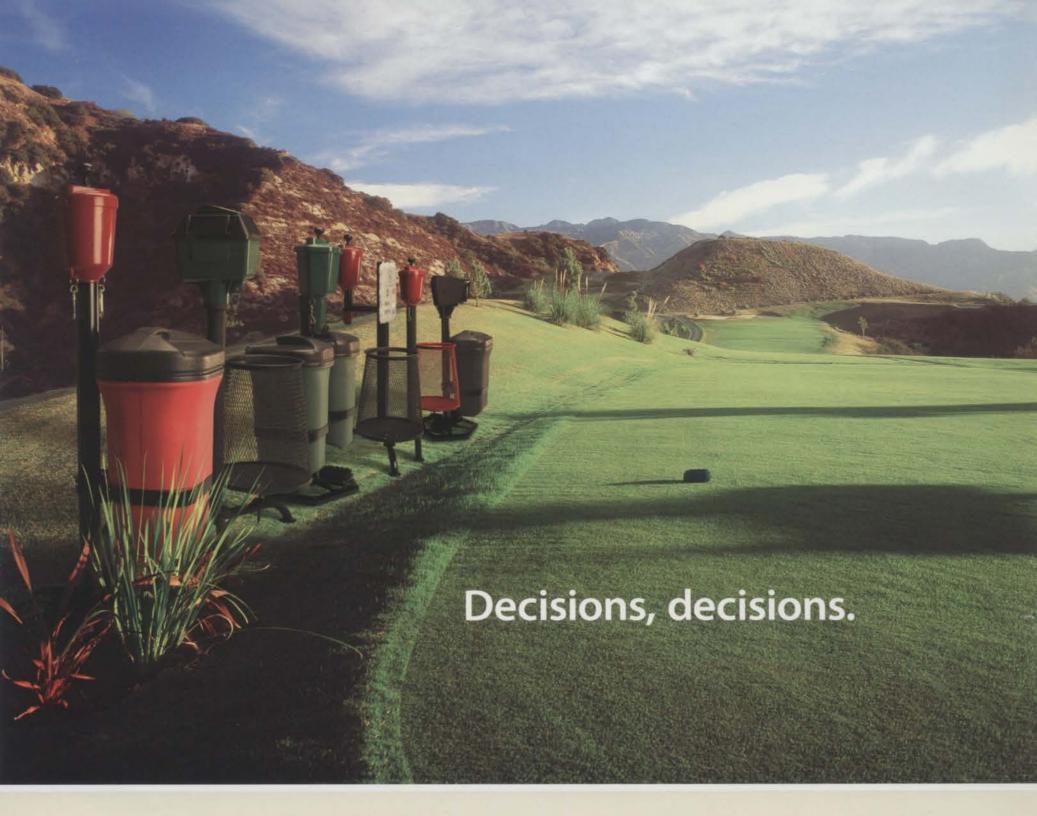
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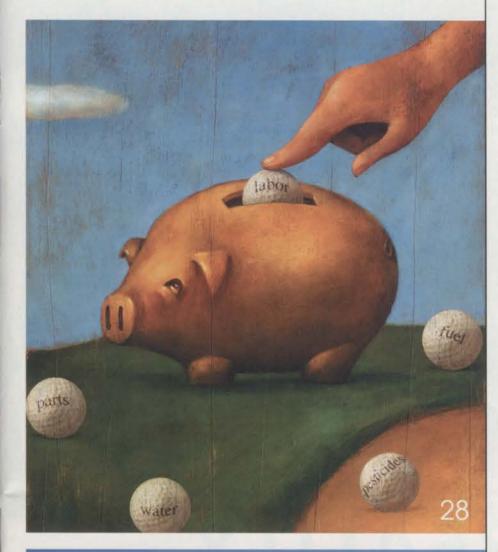
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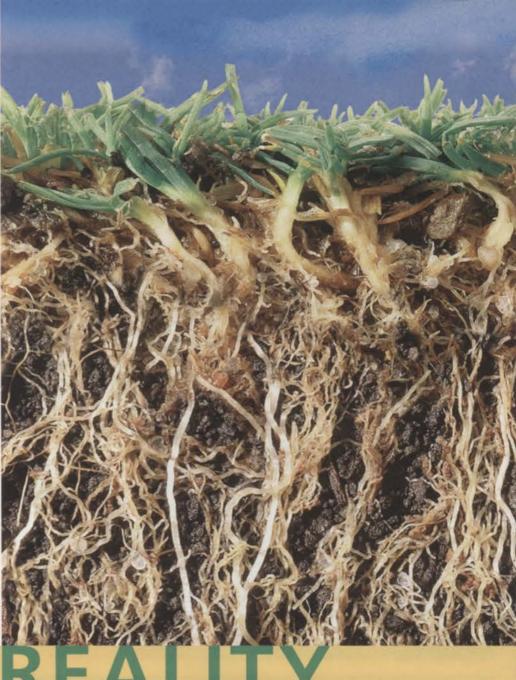
Cover art by Steve Adams

EDITORIAL MISSION STATEMENT:

Golf Course News reports on and analyzes the business of maintaining golf courses, as well as the broader business of golf course management. This includes three main areas: agronomy, business management and career development as it relates to golf course superintendents and those managers responsible for maintaining a golf course as an important asset. Golf Course News shows superintendents what's possible, helps them understand why it's important and tells them how to take the next step.



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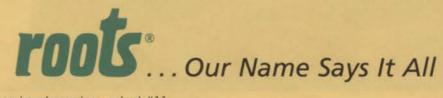
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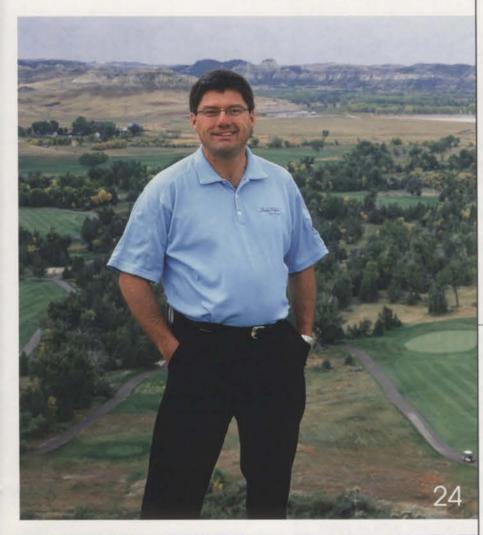
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ONLINE-ONLY FEATURES:

SLOW TO RECOVER Walker Sory, superintendent at Golf Club Audubon Park in Jefferson, La., says the course is in pretty bad shape because of damage caused by Hurricane Katrina and subsequent clean-up efforts.

LIBERTY NATIONAL PREPS FOR OPENING

The \$129-million development of Liberty National Golf Club in Jersey City, N.J., is scheduled to be completed next July.

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Hospitality check

ast month I was golfing with a few buddies on a public course in the Cleveland area. Riding along the fifth fairway, I stopped near my ball as a maintenance worker drove by in a utility cart. I waved and said hello. The maintenance worker nodded, mumbled something and drove by. I didn't think anything of it at first, but as I finished the hole and walked off the green, it dawned on me: The maintenance worker could have been more hospitable. It's not that I expected much, but I would have liked to hear something like, "Good afternoon. How's the course today?" A simple exchange is all I should expect. By greeting me more pleasantly, and asking me about the course, he would have accomplished two things: making a golfer feel more comfortable and welcome, and receiving a bit of feedback from a golfer to help improve the course. How can a maintenance staff focus on what's important to golfers when they don't ask them?

Golf is part of the hospitality business. Even though superintendents provide a product on which golfers play, they're part of an operation that aims to provide a pleasant experience for its customers. Golfers don't leave the course with anything tangible (other than something from the pro shop, but that's not why they visit the course). They leave with an experience. If it's a pleasant one, they're likely to come back. If it isn't pleasant, they might never come back. The course then potentially loses a customer for life.

LRA Worldwide, a consulting and research company based in Philadelphia, conducted research with 125,000 golfers to find more about customer satisfaction. The company's research indicates that while the condition of putting greens was the most important aspect of satisfaction, six out of the 10 satisfaction drivers were emotional and service related. Drivers such as "How was I welcomed?" "How friendly was the starter?" or "How cognizant was the maintenance staff to play around them?" are what golfers deemed important. They value these emotional elements.

The buzz phrase for this is customer experience management, and the industry is spending more time on this, partly because of overbuilt markets and the desire to increase revenue, according to Rob Rush, president of LRA. The industry thinks this is important enough to schedule Rush to

speak at the 2007 Golf Industry Show, along with several webcasts before that.

Pros and the people who work in the pro shop are the type of people who usually are talkative, friendly and hospitable. And more superintendents are putting themselves in front of customers and explaining course conditions to them. But what about maintenance workers? Aren't they expected to interact with golfers?

The focus on service needs to be inherent in the culture of an operation, from the owner down through the maintenance staff. The focus should also include training. Superintendents can do their part by encouraging, teaching and training maintenance crews to be more hospitable and interactive with golfers so their experience is more pleasant.

At private clubs, this hospitality seems to happen much more often and comes more naturally because it's part of the culture. One advantage private clubs have over public courses is the ability to provide better service.

But the maintenance staffs at public courses, especially mid-priced ones, should be more hospitable to golfers. I'm not saying they need to walk up to every golfer and start a five-minute conversation, but a friendly "Hello, how are your doing today?" is better than no interaction at all.

The obvious goal of superintendents is to provide quality, well-maintained golf courses for golfers. But they should also keep in mind the hospitality aspect of being part of a golf course and instill that mentality in the mind of their staffs. They need to keep golfers' overall experiences in mind because that will help increase business.

With slightly declining rounds and the stiff competition golf has with other entertainment, as well as competition among golf courses, every little thing counts, including how maintenance workers interact with golfers.

This is just another aspect of the business in which superintendents and their staffs can improve the overall operation of the course.

So the next time I play a round of golf at a public course and cross paths with a maintenance worker, I'm hoping for a more hospitable exchange. GCN

John Walsh

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Readers with comments are invited to write to:

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

Visit the bottom of our home page - www. golfcoursenews.com - in the Online Extras section to read more letters to the editor.

Topdressing greens

I'm interested to know where contributing writer Kevin Ross purchases his push brooms for pushing sand into his greens ("An age-old practice," page 52, July issue). This fall, I would like to begin the process of hand brooming the sand into aeration holes to incorporate the topdressing. The less equipment we put on the greens after topdressing, the better off the greens are going to be. I haven't yet purchased my brooms, and I don't want to buy the wrong ones. I'm having a difficult time with the process. Does he have any suggestions?

Also, his greens look quite large. We have about 158,000 square feet of greens on our course. How many guys does it take for the process, and how long does it usually take?

Jeff Johnson Golf course superintendent The Minikahda Club Minneapolis, Minn.

Ross' response:

I agree with you about putting equipment on the green surfaces - the less the better. We renovated our greens about 10 years ago and resodded using Penn A-4 creeping bentgrass. Since then, I've been hand brooming only. We use a broom made by Seymour (Ind.) Manufacturing (www.seymourmfg. com). I recommend the Structron push broom (model #PB24R). The bristle stiffness is perfect. You have to be careful of the bristles in brooms - too soft doesn't work well, and too stiff tends to damage the leaf tissue.

Our green surfaces total 125,000 square feet. During the aerification process, we use three to four people to broom in the sand for six greens (we do six greens per day), which takes about five to six hours.

Kevin Ross writes some interesting and informative articles to make the career of the golf course superintendent stand out and be respected. He does a good job. I enjoyed reading his article about topdressing ("An age-old practice," page 52, July issue). I echo his timely remarks and have been preaching topdressing on a regular basis for many years. Grass loves topdressing and responds accordingly.

Ross says to keep organic matter less than 4 percent by weight in the upper two inches of the surface. This statement begs the question: How does a superintendent accurately measure the organic matter in the top two inches?

Robert V. Mitchell Retired turf consultant Director of golf and grounds The Greenbrier Lewisburg, W. Va.

Ross' response:

Testing for organic matter percentage should be an important part of present day aerification/thatch reduction/topdressing programs. Many accredited labs throughout the country are capable of performing the proper testing. I personally use and recommend Norm Hummel of Hummel and Co. (www.turfdoctor. com) in Trumansburg, N.Y. Norm has been in the business a long time and is topnotch.

The results of the testing can be analyzed to determine whether topdressing and aerification programs are on track, or need to become more aggressive. With the 4-percent guideline, it's the first time we can determine scientifically how much to aerify and topdress. There certainly could be some more research performed on the whole organic matter dynamics on sand green surfaces that could be helpful.

A tip of the hat

Thanks for the kind and wonderful words about FarmLinks in your July issue ("Part of the future," page 8). What a terrific editorial. We want every superintendent to know about us, and that they're welcome here. More than that, we want them to know there are things to learn here. You've helped a bunch.

I appreciate your call to the other suppliers as well. We're not full speed on that part of our initiative yet, but we will be soon. A great assist. Thanks.

I continue to be impressed, amazed and thankful for your company's willingness to run the full page PSA for the Salvation Army World Service Office. That's really above and beyond. You set a high standard for all of us.

I wish you continued success with the publication.

Dave Heegard Vice president of sales and marketing Pursell Technologies Sylacauga, Ala.

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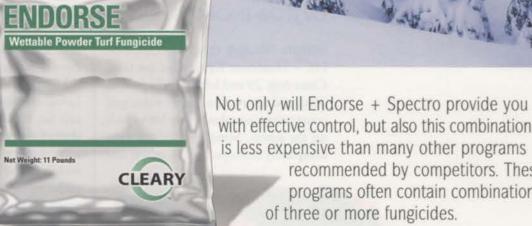
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Atlanta to provide services Houston can not

Lawrence, Kan. - Citing Houston's inability to deliver previously agreed on services, officials of the Golf Course Superintendents Association of America and the National Golf Course Owners Association moved the Golf Industry Show and the associations' respective education conferences to Atlanta in February 2006.

The conferences and trade show were scheduled to be in New Orleans originally, however, because of the destruction caused by Hurricane Katrina, officials announced Sept. 7 the events would

relocate to Houston. Atlanta, which was one of a handful of cities examined for the original relocation, last hosted the GCSAA International Golf Course Conference and Show in 2003 at the Georgia World Congress Center.

The dates for the 2006 conferences and show will remain the same as were originally planned: the GCSAA Education Conference (Feb. 6 through 11), the NGCOA Solutions Summit (Feb. 7 through 10) and the Golf Industry Show (Feb. 9 through 11).

"We are disappointed to be making this announcement," says Steve Mona, the GCSAA's c.e.o. "Officials from Houston had said they could meet our needs, but as discussions progressed, it became obvious that significant hurdles needed to be cleared. In the end, we determined the proposed arrangement would not create an experience that

would meet the expectations of attendees, exhibitors, the GCSAA and our show partners."

Mona and Mike Hughes, the NGCOA's c.e.o., say they're confident Atlanta will

provide a successful venue.

golf industry show

"The meeting and exhibit space, the hotel rooms and the supporting infrastructure Atlanta provides makes us confident the Golf Industry Show will not be compromised in any way by this moves," Hughes says.

"The convention center and hotels will be convenient locations for education, networking and exposition activities," Mona says. "Unlike Houston, there are no other events that will conflict with our ability to conduct the

conferences and trade show."

Despite relocating the events for a second time, Nov. 1 will remain the opening date for conference and show registration. A new registration brochure will be produced and distributed by a date to be determined, but online access at www.golfindustryshow.com and faxback forms will be available (800-472-7878). The GCSAA and NGCOA will be working with exhibiting companies to reconfigure the trade show floor.

Mona and Hughes say they've received strong support from attendees and exhibitors after making these unexpected

"Obviously, we are dealing with some unusual circumstances," Hughes says. "However, the respective association leaders and staffs are fortunate to have the understanding of its members and industry partners.

The GCSAA had conducted its conference and show, known as the International Golf Course Conference and Show, in Atlanta on three previous occasions: 1979, 1983 and 2003. The NGCOA hasn't conducted an annual meeting in Atlanta.

Gulf Coast superintendents recover from hurricane

by ROB THOMAS and JOHN WALSH

Baton Rouge and Lafayette, La. - Hurricane Katrina hit the Gulf Coast Aug. 29 and left behind a path of death and destruction. In her wake, golf course superintendents were left to pick up the pieces. Some golf courses were completely destroyed, while others saw

little more than scattered branches and flooded bunkers.

Mitchell Fontenot, CGCS, at the Louisiana State University Golf Club, says he, his staff and the course got by shamefully unscathed.

"Although traffic lights were out within Baton Rouge, we didn't lose any major trees, even though we don't have many to lose to begin with," he says. "Several smaller trees were blown down, but we got by fine. I had power in less than 24 hours. We had small debris that has been cleaned up, and we are open for play."

Pat Ardoin, a sales representative for Ewing Irrigation and a retired golf course superintendent based in Lafayette, La., says the Metairie Country Club and New Orleans Country Club were under water. Additionally, English Turn Golf & Country Club in New Orleans is located

right where the eye of the storm hit.

David McCallum, superintendent of The Island Country Club in Baton Rouge, La., was spared the worst of the storm - only losing a day's play.

"We're doing pretty good," McCallum says. "A whole lot better than a lot of guys.'

Sitting about 60 miles northwest of downtown New Orleans, McCallum says his course received five inches of rain, had four or five trees knocked down and had sand washed out of the bunkers. Compare that with other Louisiana courses - Chateau Estates Golf and Country Club in Kenner and Oak Harbor Golf Club in Slidell - that were under water, and McCallum is counting his blessings.

Fontenot estimates there were about 40 golf courses in his local GCSAA chapter that were hit hard by the hurricane, some utterly destroyed.

"It will take a year to recover from this," Fontenot says. "From a business standpoint, who will come and play the golf courses once they've recovered? There's no infrastructure. When people do go home, what are they going home

Ardoin agrees with Fontenot and says about 40 golf courses in Louisiana were hit hard by the hurricane. He says about another 20 were devastated from the Louisiana border to the Alabama

"It's a matter of time," Ardoin says. "Utilities are the most important thing needed to help get these golf course back up and running."

Through it all, McCallum looks for a silver lining.

"As bad as it was - and this could be the largest natural disaster this country has seen - it could have been worse," he says about Katrina moving to the east before it hit land and easing up on New Orleans. "We may not be looking at anything other than water.'

For more information about relief efforts, call 800-HELP-NOW or visit www.redcross.org or www.gcsaa.org.

Owners group measures financial benchmarks

Charleston, S.C. - The National Golf Course Owners Association has begun a comprehensive initiative to measure the game's key financial benchmarks. The program provides accurate and consistent industry measurements to help golf course owners and operators evaluate the performance of their facilities, compare their results to competitors and operate more efficiently.

Based on information provided by participating owners and operators, the reports measure participation, revenues and course usage on a monthly and rolling basis. The information will be confidential to participating owners and operators, who can use it for operational purposes and financing needs, or when providing information to analysts and media.

"A timely, accurate and unbiased set of industry metrics helps our members and other key stakeholders make informed operational, marketing and purchasing decisions," says Mike Hughes, executive director of the NGCOA. "This is the type of information decision makers in other industries rely on to understand and analyze trends. We believe these financial benchmarks quickly will become one of the most important management tools in our industry."

The NGCOA is working with Golf Datatech, a golf industry market research firm, to collect and report the financial benchmarks. Tom Stine, co-founder of Golf Datatech, says participation is key to the success of the program.

"The better the participation, the more accurate the reports will be," Stine says.

The decision to launch the program nationally follows a five-month pilot study in Atlanta, Las Vegas and Phoenix earlier this year. Stine says the program is up and running in New England and Orlando, Fla. Ohio may be falling into place shortly. Golf Datatech and the NGCOA tried similar programs years ago, but lack of participation doomed

According to Stine, courses should look at tee times as inventory. Once they're gone, they're gone forever. Getting the most out of available tee times is an important aspect of doing business.

"The operator takes money to the bank, not rounds," he says. "The key is knowing the market."

Hopes are, with complete backing of both groups in a unified stance, the program will be a success this time around. Stine says it was a group of multicourse owners within the

NGCOA that got together and pushed for the information.

"These are the right metrics reported in an easy-to-understand format," says Hud Hinton, president and c.o.o. of Troon Golf, which manages operations at more than 160 courses. "Before now, information hasn't been gathered scientifically, and credibility was an issue. There's no substitute for ongoing information in a standardized format that helps you operate more intelligently."

Henry DeLozier, v.p. of golf for Pulte Homes, which owns 23 golf courses, says having access to a broad base of performance measurements enables owners to manage their assets more effectively, helps realize best practices throughout the industry and encourages owners to establish more targeted goals."

The reports, which include information about rounds played, total rounds revenue, revenue per utilized round and revenue per available tee time, are available to every U.S. city for NGCOA members and nonmembers.

We've needed this information for

a long time," says Bert Coghill, owner of Silver Lake Country Club in Orland Park, Ill. "We have innumerable challenges, and this data will help me make more informed decisions as a course

Program participants receive information that allows them to compare their facilities' performance against their overall market. Once a critical mass of owners and operators in a given market

> decides to participate in the program, the reports can be customized to include competitive data.

"If you're not mindful of the competitive marketplace, you're continuing to participate in a one-horse race," says DeLozier.

An owner might look at his numbers at the end of the season and see a 3-percent increase of rounds played. Being content with that is one thing, but if other courses in the same market increase 20 percent, then the owner might not be capitalizing on possible revenue.

Stine says it's preferable to have a smaller market - as opposed to an entire state - when it comes to the reports. Though golf course owners in Cleveland can benefit from an analysis of Northeast Ohio, once enough courses are participating in the Cleveland area, they will be broken down into their own competitive golf market. A minimum of 15 to 20 courses will be needed to ensure accurate and confidential numbers that will benefit owners and managers.

The base fee for the first year of monthly reports is \$200 - after a free sixmonth trial. The cost for the second year and years beyond is \$100 annually.

"We want people to see how it works, how simple it is and that there is no downside," Stine says of the six-month trial period.

2,4-D review completed

Washington - The Environmental Protection Agency released its comprehensive assessment of the herbicide, 2,4-Dichloro-phenoxyacetic acid under its reregistration program. The EPA concluded that 2,4-D doesn't present risks of concern to human health when users follow the product instructions. This completes a 17-year review process.

The Industry Task Force II on 2,4-D Research Data developed and submitted to the EPA more than 300 Good Laboratory Practice toxicology, environmental and residue studies EPA scientists reviewed to assess the herbicide's safety under the Federal Insecticide Fungicide and Rodenticide Act and the Food Quality Protection Act.

Task Force members hold technical 2,4-D FIFRA registrations and include Dow AgroSciences, Nufarm, Agro-Gor Corp. and PBI Gordon.

2,4-D was discovered 60 years ago and is used worldwide for a wide variety of applications in agricultural, noncrop, residential and aquatic settings.

Scientists study course runoff

Columbus, Ohio and St. Paul, Minn. - Two Agricultural Research Service scientists are studying runoff from golf courses. The study is partially funded by the U.S. Golf Association.

Agricultural engineer Kevin King, in the ARS Soil Drainage Research Unit in Columbus, Ohio, is measuring the amount of pesticide and nitrogen and phosphorus from fertilizers being lost from golf courses in Columbus and in Duluth, Minn. On a golf course in Austin, Texas, he is studying nitrogen and phosphorus losses only.

Chemist Pam Rice is monitoring pesticide losses from turfgrass plots at the ARS Soil and Water Management Research Unit in St. Paul, Minn., with collaborator Brian Horgan at the University of Minnesota.

King and Rice are coordinating their research. Rice's data might help King make the ARS Soil and Water Assessment Tool model more accurate when predicting losses from golf courses. While King recently started the study of the Columbus golf course, he has three years of data

from the Duluth golf course and five years from the Austin course. He has measured annual per-acre losses of six pounds of nitrogen and 0.3 pounds of phosphorus from the Austin course. Amounts from the other courses were even lower, and the pesticide losses measured from the Duluth and Columbus courses were low as well - much less than from most farmland.

More research is planned, with the goal of finding the best ways to minimize losses to the environment while maximizing turfgrass quality.

Review process identifies issues

Harrisburg, Pa. - To help clubs identify potential areas of improvement in a cost-effective manner, Golf Property Analysts developed a three-phase, independent, operational review process. In phase one, the consultation will include a one-day site visit and will address the following issues:

- Identification of the club's overall
- · Financial operations review: revenues, expenses, debt and tax assessment;
 - · Market position/membership;
- Discussion with club management and leadership;
 - · Tour and review of all club facilities;
 - · Agronomic review;
- · Overall land, safety and real estate related issues, including highest and best use review; and
- · A written executive summary is provided outlining issues and cursory recommendations.

The objective of the one-day review is to offer a cost-effective way for clubs to undergo a limited, independent checkup and identify any issues warranting further attention. The written executive summary to be provided can serve as an independent guideline to assist the club with its short and long-term strategic

Phase two expands on the topics analyzed in phase one, providing a more detailed analysis, including:

- Market research and analysis;
- · Financial analysis;
- · Cash flow analysis;
- Highest and best-use analysis;
- · Equipment and capital improvement plan;
- Specific recommendations;

- · Detailed maintenance review and written maintenance plan development;
- · Master plan review.

Phase three is an implementation phase. The company will work to help implement the specific recommendations made in phase two or provide other services as deemed necessary:

- Market value appraisal;
- Tax assessment analysis;
- Mortgage financing package preparation;
- · Brokerage services; and
- Project management.

Course news

Jacobsen Hardy works on club at Gray's Crossing

Truckee, Calif. - Ground has been broken on The Club at Gray's Crossing, a new 18-hole project from Jacobsen Hardy Golf Course Design. Set on terrain above Lake Tahoe, the club will serve as the exclusive members course for Tahoe Mountain Club, a real estate/resort community developed by East West Partners.

Peter Jacobsen, who is the 2004 U.S. Senior Open champion, will oversee the design of the private course scheduled to open in 2007. Jacobsen also serves as director of golf at Tahoe Mountain Club, which includes two courses: Old Greenwood and Coyote Moon.

The 18-hole design - being built by Weitz Golf International - features a mix of open meadow holes combined with mountainous hole settings cut from thick stands of lodgepole and ponderosa pine.

Higher points on the property are influenced by a water flow off the mountains. At the 185-yard par-3 eighth hole, Jacobsen Hardy is working with Alliance Golf of Indiana to harness the flow into a recirculating, rock-strewn waterfall that sits just left of the putting surface.

The course will measure 7,534 from the tips, 5,139 from the most forward tees.

The entire course will be sodded next year, partly because the course is located at an elevation of 6,000 feet.

Old Greenwood - a Nicklaus design opened in 2004 - also was sodded tee to green, according to Joel Blaker, director of agronomy at Tahoe Mountain Club. West Coast Turf will custom grow a blue-



grass mixture for Gray's Crossing starting this September, Blaker says.

For Gray's Crossing, Jacobsen Hardy and Blaker specified a mixture of five bluegrass varieties: Award, Liberator, Midnight, Unique and Rugby.

Architect finishes course renovation

Havertown, Pa. - Golf course architect Stephen Kay of Stephen Kay/Doug Smith Golf Course Design helped renovate the golf course at the historic Llanerch Country Club, which is more than a century old.

It took Kay and his team 10 months to complete the project for the 6,750-yard, par-72 course took. The course closed for renovation in August 2004 and reopened May 28, 2005. Kay's master plan focused on preserving the best aspects of Llanerch's classic design, while incorporating enhanced aesthetics, safety, strategy and challenge for the modern golfer.

Kay renovated all 18 holes, rebuilt 90 bunkers and six tees, and laser leveled the other 12 tees. He also reshaped fairways and modified two greens.

New Course Golf is the builder working on the project.

A key aspect of the renovation was the removal of trees that had grown too tall or shouldn't have been planted because they ran counter to the course's original design. The result was to open up several holes to restore playability and make them more aesthetically pleasing.

Nicklaus course opens in Delaware

Fenwick Island, Del. - Bayside Resort Golf Club, a Jack Nicklaus Signature Golf Course, is open. The waterfront links layout is the centerpiece of a resort golf community that sits on 867 acres that have been enhanced by four resort villages and private residences, along with markets, restaurants, boutiques and a plaza.

The par-72 layout has five sets of tees. It plays 7,545 yards from the signature tees and 5,168 yards from the front tees.

The resort/semiprivate course is accessible to members and guests of Bayside Resort. Opening green fee is \$160 per player in season, which includes a mandatory cart. Public play also is available.

Bayside is a development from Carl M. Freeman Communities LLC. Wadsworth Golf Course Construction was the builder on the project.

Countryside to get upgrade

Mundelein, III. - Forest Preserve selected Michael J. Benkusky Golf Course Architecture to assist with golf course im-

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provements at Countryside Golf Course. Benkusky originally designed the course while he was a project architect with Lohmann Golf Designs.

The Prairie Course was opened for play in 1991. During the original design process, Benkusky also oversaw a master plan for the Traditional Course.

The project includes improvements to the clubhouse area and plans for the construction of a new putting green and chipping complex this fall.

Ironhorse club to be redesigned

Tuscola, III. - Within a few months of starting his own firm, Michael Benkusky secured his first solo design project at Ironhorse Golf Club, which was purchased in the fall of 2004 by Gerald Forsythe, owner and founder of Canyata. It's a project Benkusky designed when he was with Lohmann Golf Designs.

Ironhorse, which plays to a par 72 at 7,131 yards, was designed in 1994 as a links style golf course with few trees and large fescue covered mounds.

The first task Benkusky faces is to add more trees to the site. Another task is to look at the strategy of the golf course. Even though the course is only 10 years old, technology has eliminated much of the strategy. Many of the bunkers and hazards are out of play for a majority of the golfers.

Cape Fear club to be restored

Wilmington, N.C. - Golf course architect Kris Spence was selected by the membership of Cape Fear Country Club to restore the club's historic Donald Ross-designed golf course.

The history of Cape Fear dates back to 1896, making it one of the state's oldest country clubs. In 1922, Ross redesigned the golf course and tweaked it again in 1946, two years before his death. Spence intends to reclaim the classic design that has been lost throughout the years.

Spence has rejuvenated other Ross layouts in North Carolina such as Grove Park Inn in Asheville, Mimosa Hills in Morganton, Greensboro Country Club and Roaring Gap Club in Roaring Gap. He's also working on a project at Carolina Golf & Country Club in Charlotte.

Spence will be able to use the original detailed plans drawn up by Ross. In addition to the design work, Spence's company, Spence Golf, will handle the construction portion of the project.

The project begins Nov. 1 and is expected to be completed by mid-July. The \$2.7-million project includes the revamping of greens, tee boxes, bunkers, cart paths and the irrigation system. Spence also will make drainage improvements.

The project will undo many changes made during a 1986 renovation project that eliminated most of the Ross traits.

Course upgrade nears completion

Waterville Valley, N.H. - The ninehole Waterville Valley Golf Club is nearing completion of its half-million dollar renovation. The new course includes three new holes, the redesign of three old holes, a new pro shop and a new half-acre pond. The new course will include four par-4 holes.

Visitors started playing golf there in 1898, but over time, the course had developed some quirks, including two holes that required shooting over a state highway.

The impetus for renovating the course came with a new development of adjacent land called Moose Run for the last subdivision of single-family homes.

While adding improvements to the 108 year-old course, designers have worked to retain the character and tradition of the club.

The course generates about 16,000 rounds of golf a year.

Berming and shaping of the new and redesigned holes is being completed by a design team from Oncourse Golf. Sodding of the greens was complete in September, and golfers will be able to play the new course next year.

Developers partner with CCNG Realty

Austin, Texas - Discovery Land Co., a San Francisco-based golf and residential real estate development company, and Hillwood, a real estate development and investment firm, partnered with CCNG Realty to complete development of the Spanish Oaks Golf Community. The

partnership will invest substantial new equity in the project. Spanish Oaks is located on 1,200 acres and is cradled on two sides by nature preserves and Barton Creek. With its focus on luxury golf, amenities and member services, Spanish Oaks will feature a clubhouse that will offer luxuries and conveniences, including spa treatments, fitness facilities, members' shopping boutique, lounge areas, swimming facilities, and fine and casual dining. It also will provide property management and lifestyle concierge services to all members.

Species growing at Trump National

Palos Verdes, Calif. - Although cut from an environmentally sensitive area, Trump National includes 125-acres of restored coastal sage scrub, in which the population of the federally listed threatened Coastal California gnatcatcher, is



increasing. Breeding pairs of gnatcatchers have increased from four to 15, and more than 205 fledglings have been raised since the restoration began in the late 1990s.

Dudek & Associates, an environmental services firm, developed and manages the course's habitat restoration program.

While the gnatcatcher has been the bete noire of California developers, Trump National succeeded blending land development with environmental

The gnatcatcher is said to be one indicator of how healthy the California coastal ecosystem is.

The gnatcatcher is at risk of extinction because of a decline of natural coastal sage scrub habitat, according to Dudek & Associates. Of the 2.5 million acres of coastal sage scrub that once stretched from Ventura to the Mexican border, 10 percent remains, according to the firm. Trump National sits in the middle of



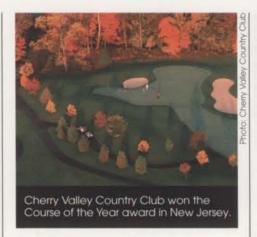
one of the few habitats for the bird in the L.A. basin.

The plan to protect the gnatcatcher began in the mid 1990s. As a precondition to construction of what was then known as Ocean Trails, regulators told the course's original owners they would have to show they could successfully restore coastal sage scrub. The owners brought in biologists and landscape architects who demonstrated a restoration program.

Additionally, a restoration project is under way at the course in which more than 100,000 native, drought-tolerant plants will be added.

Cherry Valley receives award

Skillman, N.J. – The New Jersey Golf Course Owners Association named Cherry Valley Country Club Course of



the Year for 2005. The NJGCOA presented the club with the award Oct. 10 at the Forsgate Country Club.

As the New Jersey state winner, the private, member-owned club is among the nominees eligible to receive the National Golf Course Owners Association Course of the Year award that will be announced at the organization's national convention

at the Golf Industry Show.

The criteria used to evaluate and select the course of the year are: exceptional quality of the course, exceptional quality of the ownership and management, outstanding contribution to the community and significant contribution to the game.

Indian Boundary sets rounds record

Chicago – Indian Boundary Golf Course set a record of 618 rounds played in a single day. The rounds were played July 8 and set an all-time high for the 57 courses managed by Billy Casper Golf nationwide. The record-breaking round total was a result of Indian Boundary's "Get Out and Play" day that included preferred rates for early-bird and mid-day tee times,





as well as a family night golf event. Golf course architect Tim Nugent recently reworked Indian Boundary. Nugent added two new par-5s to the course, which also received new grass tees, updated irrigation and drainage, and a lake on the 16th and 17th holes.

Course institutes discount program

Panorama Village, Texas - The

Village Golf Club, formerly Panorama Village Country Club, is offering an employee advantage program, an initiative that allows local companies the opportunity to extend preferred rates discounts on greens and cart fees, pro shop merchandise, refreshments and dining to their work forces.

At no cost to the participating businesses, the employee advantage program acts as a benefit package that companies can extend to their workers. There's no cost for employees to enroll in the program. More than 3,000 workers with local organizations and businesses have access to the program.

Participation is easy for employers and employees. The club provides businesses with registration forms and signage detailing the availability of the program. Employees of participating companies present their registration form and a valid company ID at the club to receive their employee advantage card good for the preferred rates and discounts.

Billy Casper golf manages the club.

Tacoma club to host junior championship

Lakewood, Wash. - Tacoma Country & Golf Club was been selected as the site of the 2007 U.S. Girls' Junior Championship July 23 through 28.

Tacoma Country & Golf Club is one of the first 100 clubs established in the United States. It opened in 1894. Known for its narrow fairways and fast, undulating greens, the club previously hosted the 1961 U.S. Women's Amateur, the 1994 U.S. Women's Mid-Amateur and the 1984 USGA Senior Women's Amateur. The club also has hosted the Washington State Open in 1932 and

Before 2007, the U.S. Girls' Junior Championship was played at BanBury Golf Club in Eagle, Idaho, July 18 through 23, 2005 and will be played at Carmel Country Club in Charlotte, N.C., July 17 through 22, 2006.

People

The Northeastern Golf Course Superintendents Association presented the Distinguished Service Award to Scott Gallup, superintendent of Capital Hills at Albany (N.Y.).

Terry G. Dillner, golf course superintendent at Arbor Hills Country Club in Jackson, Mich., died from an apparent allergic reaction to an insect sting.



Gary Lane Robinson, golf course su-

perintendent at Perry Park (Ky.) Golf

Course, died in an automobile accident.

Arthur Chernov was named vice president of sales and marketing at PGA

National Resort & Golf Club in Palm

Carolinas Golf Course Superintendents

Association will honor Bob Bell with its

Distinguished Service Award in Novem-

ber. Bell is vice president and manager

of the turf products group with Smith

Joseph M. Duich, Ph.D., professor

emeritus of turfgrass science at Penn-

sylvania State University, was selected to

receive the 2006 Old Tom Morris Award

from the Golf Course Superintendents

Association of America. The award will

be presented during the opening session

of the 2006 GCSAA Education Confer-





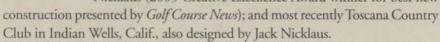


SEMA's project manager dies

Brandon J. Steele, 32, of Scottsdale, Ariz., passed away Aug. 15. He is survived by his parents, Robert and Shari Steele of Scottsdale, Ariz., and his two sons, Mason and McKane Steele, of Austin, Texas.

Brandon Steele graduated high school in Morris, Ill., in 1991 and went on to attend Northeast Missouri State University on a football scholarship. He graduated

> with a degree in criminal justice in 1996. After graduating college, Steele joined SEMA Golf and worked his way up to project manager. While at SEMA, he was an active member of the Golf Course Builders Association of America. Steele was involved with 12 projects during his tenure with SEMA including: Comanche Trace in Kerrville, Texas, designed by Kite/Bechtol/Russell; Outlaw at Desert Mountain in Scottsdale, Ariz., designed by Jack Nicklaus (2005 Creative Excellence Award winner for best new





He was 18 years old.

Beach Gardens, Fla.

Turf and Irrigation.

ence Feb. 9, 2006 in Atlanta.

The Environmental Institute for Golf named Gary N. McClung to its advisory council. McClung is president of Midway Ford/Sterling Truck Center in Kansas City, Mo., and becomes the 13th member of the advisory council, which is headed by Greg Norman.

Mike Ruizzo was named national account manager for the Chipco Professional Products group of Bayer Environmental Science.

Scott Welge is fungicide business manager for the Chipco Professional Products group of Bayer.

Jennifer Remsberg is communications manager for the Chipco Professional Products group of Bayer.

Briggs & Stratton named Ann Roche vice president of commercial engines. GCN





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Identify problems first

t's a refreshing exercise to discuss creative and inspired marketing ideas for golf courses, but if those ideas don't solve specific and unique problems that your course is experiencing, then they're not much good to you no matter how ingenious they might seem.

I recently participated in a marketingideas luncheon for golf course owners. There were many great ideas, but not all of them will apply to your course or be beneficial for your course in the long run.

To implement an effective marketing plan, golf course managers first need to identify real problems with their courses unique to their market. Once the problems are identified properly, they need to be solved fittingly. As self-serving as it might appear, qualified consultants can be valuable to determine the true problems and corresponding appropriate solutions unique to the marketplace because they have no emotional ties to the course and have accumulated many marketing programs to help generate revenue from their prior work. However, many golf course managers have a difficult time defining their courses' true problems and developing solutions for them.

In years past, the demand for golf was always there. But recently, during the mid-1990s, people who analyzed the golf industry realized supply was outpacing demand and annual average rounds were reversing their progressive trend in the United States. This ultimately caused owners and managers to think creatively when trying to generate more business (rounds and revenue) for their golf courses. Yet, many of their marketing ideas didn't solve many of the courses' problems in the long term.

A problem isn't really a problem (as perceived) unless a specific unique solution can be implemented to alleviate that problem beneficially. That's confusing, but let me explain. The following is an example of a perceived problem, not necessarily a real problem.

A golf course owner in the Mid-Atlantic region thought he had a problem because his perception was that he wasn't making enough money from the many groups of seniors playing his course. These seniors were paying \$14 a round Monday through Thursday. The highest rack rate at the course was \$27 a round at peak times - \$22 at off-peak times. One option for the owner was to increase the green fee for the seniors. Yet if he did that, he most likely would lose a significant percent of those seniors to another course. Therefore, from a marketing perspective, the owner first needed to identify what golfers would likely replace those seniors if he increased the green fee and the seniors left for another course. If the replacement of rounds was beneficial to the course's bottom line, then implement the solution. However, if the desired replacement remained an unknown, the owner might want to reconsider his predicament, as perceived by him, and view it as an opportunity versus a problem. Understanding the difference between a problem and an opportunity often is the difference between success and mediocrity, worse yet, failure.

We reviewed the day-segments the seniors were playing and compared the revenue to similar days when they weren't, as well as same day segments from past years. It was decided there would be greater inconsistency of play (revenue) and the business would likely suffer if the seniors left. In retrospect, the owner had guaranteed revenue from these seniors who chose to play at his course at certain low-demand times.

In this case, the owner thought he had a problem because he thought the seniors were playing too cheaply. But in reality, he didn't have a problem.

They were playing at low-demand times and in sufficient quantities to represent significantly more revenue than projected probable outside play even at higher rack

After recognizing this unique group, though, I suggested the owner survey these players to determine if he could fulfill their other desires beyond inexpensive golf while they congregated at his course. The survey revealed several easy suggestions, and the seniors readily partook of the course's new offerings. The end result was that this segment of players proved to be an additional source of revenue beyond inexpensive greens fees. In this case, a problem didn't exist, and a revenue opportunity was almost missed. So, know the difference between a problem and an opportunity.

One way of identifying a course's real problem(s) is to analyze the inefficient parts of the operation. If it has to do with revenue, and most problems do, then start the marketing thought process by identifying what's unique about the course's true positioning in its market. If you need to generate additional revenues first, identify the varied segments of business available in your market to help you succeed.

For example, you might opt to generate more revenue by hosting more golf outings. However, your course might not be ideally suited to host outings because of the way it's routed. Before you begin a marketing campaign designed to generate many outings, review your course and eliminate potential bottlenecks that might lead to negative word-of-mouth by those in the outing.

Other real problems courses can have contributing to a lack of desired revenue are equipment/facility depreciation, liability issues, personnel problems and location problems, which could end up draining the operations of even more revenue.

An example of a routing problem is a course I consulted with years ago that was laid out next to a small mountain range. Because of a routing transgression, the first three holes had the least exposure to the

> morning sun and had more frost or snow on them in late spring and late fall for a longer period of time, making the holes unplayable. The

result was fewer rounds, a shorter season and less revenue potential for the course. No amount of effort put forth toward creative or ingenious play-enticing marketing promotions would help solve this problem. The solution was to flop the nines during these seasonal times, permanently if it makes sense for the course's market.

Solving a course's real problem(s) is good marketing and operations. However, just using marketing ideas that sound good, or that are conceived out of kneejerk reaction to a real or perceived problem are, at best, mediocre short-term marketing promotions. Problems aren't solved by creative, even ingenious, marketing promotions, but by marketing programs that address long-term solutions based on your course's unique market position. Do you know what your unique market position is? GCN

TO IMPLEMENT AN **EFFECTIVE MARKETING** PLAN, GOLF COURSE MANAGERS FIRST NEED TO IDENTIFY REAL PROBLEMS ...

Invest in infrastructure

n my first column for Golf Course News, I expounded on what to expect from a long-term master plan. The following excerpt is from that column:

... Unlike buildings, where shifting foundations or leaky roofs are painfully obvious, golf course problems are often ignored. Many think golf courses are natural, and take care of themselves. In many cases, the superintendent masks problems too well by keeping the course in great shape. Clubs that have invested substantially in the past may mistakenly believe that the course is set for life.'

When Tom Marzolf took the reins as president of the American Society of Golf Course Architects earlier this year, he crafted a similar presidential message to encourage golf courses to plan ahead for recurring infrastructure costs. That's right, recurring costs. As he summarizes on the ASGCA Web page:

"Golf course decision-makers need to think carefully about recurring costs of their infrastructure. Golf courses evolve, in a sense live and breathe, so course

DESIGN STYLES COME

AND GO, BUT GOOD

INFRASTRUCTURE WILL

NEVER GO OUT OF STYLE.

managers are wise to consider the life cycle of their golf course, paying particular attention to recurring costs of items like irrigation, drainage and

bunker sand. These items have specific life expectancies, which enables managers to plan ahead. Doing so improves the golf course and can even save money in the long run, especially if it's done in the context of long-range master planning.

'Golf clubs have responded to competitive pressure in the marketplace, changes in clientele and technological advances, and successful golf course managers have elected to remodel their facilities. However, as they examine these issues they also need to consider the functionality of the layout: how water drains, bunkers perform and cart paths hold up are essential to the long-term success of a golf facility."

Marzolf has detailed the expected life cycle of various golf course components:

- USGA greens 15 to 30 years
- Other sand based greens 15 years
- Bunker sand five to seven years
- · Irrigation system (good quality) 20 to 25 years

- Irrigation system (lower quality) 15 to 20 years
- · PVC irrigation pipe under pressure 15 to 30 years
- · Cart paths (asphalt) five to 10
- Cart paths (concrete) 15 to 30 years (or longer)
- Practice range tees five to 10 years
- Tees 15 to 20 years
- Major drain pipes (PVC) 15 years
- Major drain pipes (corrugated metal) 15 years
- Bunker drain pipes five to 10 years
- Mulch one to three years.

I hate to say it, but I have been around long enough to see a few completed life cycles. I know things wear out and know rising standards - whether self-imposed maintenance standards or outside standards, including environmental protection regulations or competitive improvements to conditions at nearby courses - often require changes before the end of the useful service life of golf course components. Infrastructure needs to be repaired, replaced

> and upgraded every chance one gets.

A few things stand out on that list. First, the adage "if it's worth doing, it's worth doing right the first time" ap-

plies. Spending a bit more, which is difficult in lean economic times, saves funds in the long run. Prime examples are:

- · Using concrete cart paths rather than asphalt and pouring them 5-inches thick rather than 4-inches thick for added strength. Using a gravel base and rebar or fiber mesh for proper strength ensures your paths will last a long time.
- · Designing an irrigation system pipe to lower velocities (i.e. bigger pipe) may double its service life. If an irrigation plan has many 3- and 4-inch main lines, I'd be wary. Ask an irrigation designer what the maximum flow velocity is -4 to 5 feet per second is good. Anything higher will likely shorten the life of a system. Don't do it.
- · Properly installing plastic drain pipes. Plastic pipes should have unlimited service life, provided they're installed on gravel beds and properly compacted. There's evidence they crush quickly otherwise.
 - · Installing drain pipes of proper size.

Superintendents often have designed drainage systems around the small equipment they have to install it. While golf courses don't present health, safety and welfare issues requiring huge drains, most golf course drains are undersized, and slow drainage gradually weakens turf.

· Using USGA greens construction. I've been using modified USGA greens, and they provide good results. However, there are drainage problems when gravel layers and other options are taken out to save money.

While many recent renovations have been spurred by stagnant rounds and greater competition, causing courses to focus on upgrading their look and appeal, it's obvious that without the proper infrastructure, it'll be just as difficult to maintain those improvements as it was in the past. Course degradation begins the minute the ribbon is cut on a newly renovated course - unless you spent wisely on the infrastructure to maintain that look.

Seeing these numbers from similar experiences of other ASGCA members puts golf course infrastructure in a new perspective for course managers. It shows that every course should have a different master plan. Just because the course down the street has a new look, it might not have invested wisely; or maybe they have, but it's wise to invest solely in upgrading only the infrastructure.

In many renovation projects, I recommend investing solely in infrastructure, especially when a course has major infrastructure problems. A dollar spent on cart paths, drainage and irrigation is almost always a dollar saved down the line. It's harder to explain or justify the economics of that beautiful new bunker. As much as architects like to redesign courses in a new model, aesthetic improvements don't always attract enough new play to justify their expense, whereas intelligent infrastructure investment usually does. The best defense against lean economic years is to design and build a golf course that has good bones.

In these cost-conscious days, intelligent investment should be the mantra for golf courses - new and old. Design styles come and go, but good infrastructure will never go out of style. GCN



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



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The GCSAA board

y last GCN column (September) presented the concept that because the current notfor-profit governing formats, with their corresponding lack of discipline, position golf's associations at a constant disadvantage - corrective measures are needed. The suggested remedy offered was to bring private and academic sector professionals to golf associations' boards of directors, using the GCSAA as a model for golf's n-f-p organizations collectively.

Recognizing how easy it would be, with the best intentions, to misfire when looking to implement this concept, my purpose now is to frame the issues that will require scrutiny when the time comes to consider the board privatization process for the GCSAA and other n-f-p golf associations.

GCSAA board profile. Assuming an expanded 11-person board would be preferred to the current nine-person board because it would make more expertise available within a still manageable board size, the following guidelines are suggested: First, that GCSAA members occupy six of the 11 board positions that would be elected with geographical balance across the country; second, that only GCSAA members would be eligible to become officers; and third, that all board members would serve threeyear terms - with a one-year presidency.

A more sensitive issue to address is whether the five private-sector board members would serve voluntarily and pay their own travel expenses like the U.S. Golf Association private-sector board members. This issue is complicated because what might be done in this regard for the privatesector people wouldn't necessarily be done for GCSAA board members. Recognizing that the USGA's position is unique within golf and can't be readily duplicated, I'd favor paying an annual courtesy stipend of \$10,000 to the private-sector board members, as many Fortune 500 companies do, but not to the GCSAA board members; and then have the association pay all travel expenses for all board members.

Committee profile. The board privatization process would serve the committee structure well, i.e., putting the presidency aside, the five remaining GCSAA board members would chair five to-be-identified standing committees, while the five private-sector board members would be appointed as vice chairmen of these same standing committees. The inherent benefit that would result from coupling a GCSAA member with a private-sector professional within each standing committee is that each individual would be exposed to the culture of the other, thereby forging the best possible leadership teams throughout the association.

Care will have to be taken not to overschedule board and committee meetings throughout a year because this would wear board and committee members thin and discourage future board participation. The objective would be to insure that no board member would attend more than four or five board and committee meetings combined each year. This goal can be comfortably realized by scheduling many committee meetings at the same site immediately prior to board meetings.

The nominating process. Because all the best planning will ultimately fail unless appropriately qualified people are continuously fed on to the GCSAA board, the nominating process becomes the cornerstone on which the privatization process must be built. Logic suggests the best way to determine what caliber nominating process will be needed is to look first at what quality of person the GCSAA will require on its board of directors.

Clearly, the revised GCSAA board should consist of people who possess the skill sets that need to be passed on to the GC-

SAA for the benefit of its members. These individuals abound across the country. The challenge is to determine who is best qualified to identify board candidates? As experienced players and coaches are judged to be the better evaluators of athletic talent, so too in golf should those people with these same proven skill sets be best equipped to judge who is best qualified to serve on the GCSAA board.

Accordingly, the GCSAA nominating committee should consist of two categories of people. The first category should be superintendents and golf-course-management-oriented people (including sales and management personnel from service and equipment manufacturing companies) with the appropriate experience to identify

the six rotating GCSAA board members. The second category should be selected from: academics; entrepreneurs; the media; and those who've successfully served on the boards and/or nominating committees of organizations such as the National Club Association, the National Golf Course Owners Association, the USGA, the National Golf Foundation, the First Tee Program, the regional/state golf communities and leading American corporations, including experienced human resource personnel, to identify the five rotating non-GCSAA board members.

Finally, the makeup of the nominating committee might include an equal number of members from each of the two categories mentioned above. This would require each category to interact with the

Nominating committee mission statement:

To create a continuing flow of qualified people to serve on the GCSAA board of directors with the Intention: (i) to optimize GCSAA members' quality of life, job security, professional recognition and compensation levels; (ii) to provide the opportunity for the GCSAA to earn recognition as the leading educational institution in golf by presenting self-generated diverse programming via the Internet and college/university curricula; (iii) to restructure staff culture in a way to generate constructive staff flow, to re-establish staff accountability and to reposition the power base of the association within the board of directors - all with staff support and encouragement; and (iv) to generate such pride in being a golf course superintendent and GCSAA member that the profession will become the most sought after career path in golf.

> other to the degree necessary to earn the one additional vote needed for a majority opinion - a welcomed educational opportunity. To help tie all this together, the nominating committee might be guided by an appropriate mission statement - a draft of which is below.

> There's no doubt this mission statement can be implemented effectively because there would be no expense involved, only a commitment to the pursuit of excellence. However, there's a deal-breaking roadblock threatening to stall every initiative, i.e., GCSAA bylaw changes (as would be necessary here) require a difficult to obtain two-thirds vote to pass. My next column will suggest how to constructively address this paralyzing circumstance. GCN

Conflict resolution

or those in the North, the season is winding down. During the next few months, you'll have more time for casual and not-so-casual conversation. For those in the South, you must find time for the not-so-casual conversations. A crucial part of the not-so-casual conversations should be about conflict with course leaders (golf pro, owner, green committee chair, etc.), employees, and family and friends.

Some conflicts are minor and easy to handle. However, conflicts of greater magnitude require a strategy for successful resolution to prevent them from creating constant tension. Consider the following conflict situations.

1. As a superintendent is presenting a schedule for the winter season, Laura objects, arguing for more opportunities to attend workshops and classes. At first, the superintendent is defensive, but then he remembers one objective of the course is to ensure all processes and practices at the course are up-to-date. The outcome of this exchange is that the staff works together to adjust the schedule to assure the course will be ready come spring while enabling additional workshop and class attendance.

2. Two employees have arguments almost every week when work schedules are posted. They look at each other's schedules and complain about the other having better hours. Each week the supervisor says, "Don't argue. We're a team, so don't disagree." Now the entire staff is complaining about work schedules, and morale and productivity are declining.

3. The golf course superintendent and the golf pro are good friends, often golf together and agree on most issues. Too frequently, however, they have difficulty agreeing on, and resolving, issues relating to the direction of the course. These disagreements are increasing and sometimes include minor issues.

Two points can be made by contrasting these three situations. First, conflict isn't good or bad. (See chart below.) Resolution in the first situation leads to a great outcome. The unresolved conflict in the second situation is poisoning the whole staff. The second point isn't whether conflict is present, because it will be present in any relationship, but it must be resolved. Conflict is present in all three situations, but conflict resolution exists only in the first.

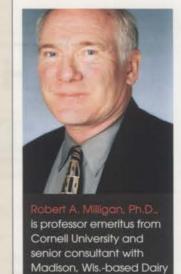
We often view conflict as an event; however, in reality, conflict is best viewed as a cycle. What we observe as conflict is the symptom of a deeply rooted issue. An event precipitates actions - disagreement, arguing, fighting - that we call conflict. These behaviors typically represent the current reaction to a more deeply rooted conflict. Thus, we look at conflict is a cyclical process.

The often deeply rooted source of the conflict is an issue that arises when the concerns of two people appear to be incompatible. To illustrate, let's analyze the three situations and articulate the apparent issue:

- 1. The superintendent and Laura disagree on the level of involvement of employees in their work assignments.
- 2. The two employees aren't satisfied with their work schedules and each believes the other is getting preferential treatment.
- 3. The issue between the superintendent and the pro is the direction of the course. In each case, the disagreement isn't spe-

cifically about the issue; it's about a symptom of the issue. To address the conflict, we must understand the conflict cycle. Overt conflict occurs periodically when the contrary values or goals - the issue - surface through a triggering event. The underlying issue lies dormant until something happens to trigger conflict behavior. Once triggered, the conflict behavior becomes less pronounced throughout time. The issue might not be apparent until the next triggering event causes the cycle to repeat itself. The four elements of the cycle are issues, triggering events, conflict behavior and consequences.

Most conflict cycles aren't static. Without conflict resolution, conflict cycles usu-



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Conflict cycle analysis

The four elements of the conflict cycle using the second situation mentioned.

Triggering event: The weekly posting of the work schedules. Behavior: Employees argue with each other and complain

Consequences: Other employees are upset and begin complaining. Motivation and productivity of all employees decreases.

- 1. Not all triggering events occur this regularly.
- 2. As here, the consequences can reach far beyond the
- 3. This conflict is escalating.

ally escalate with more frequent triggering events and/or more intense conflict behavior. Most conflicts are resolved by de-escalation of the cycle, which takes time. Rarely is resolution so successful and complete that the next triggering event has no impact on the behavior of the parties to the conflict. The four elements of the conflict cycle are illustrated for the second situation with the two employees. (See box above.)

In the first situation, the success of dealing with the triggering event should contribute to de-escalation. In the third situation, however, the conflict is escalating, and without movement toward resolution, could lead to unwanted consequences - perhaps a resignation.

In your relationships - leadership, supervisory, personal - think differently about conflict. When you have conflict, look for the real causes and issues. Then identify the conflict cycle elements and work to resolve the issue(s) and de-escalate the conflict. GCN

Good and bad consequences of conflict

GOOD

BAD

- Properly managed, conflict can be beneficial.
- · Conflict is the root of change.
- People learn and grow as a result of conflict.
- Conflict stimulates curiosity and imagination.
- · Conflict relieves monotony and boredom.
- Conflict can provide diagnostic information about problem areas.
- · After conflict, closer unity can be established.
- · Prolonged conflict can create excessive stress and cause injury to your physical and mental health
- · Conflict diverts time, energy and money away from reaching important goals.
- Conflict often results in self-interest at the expense of the organization.
- Intensive conflict might result in lies and

BY THE NUMBERS

The number of female core golfers in the United States in 2004, according to the National Golf Foundation

The number of nine-hole and 18-hole golf courses under construction throughout the United States as of Sept. 12, according to NGF

The average number of rounds played a year by core male golfers, according to NGF

957.000

a female core golfer, according to NGF

The average age of a female golfer in the United States, according to NGF

The percentage decline of rounds throughout the country through July compared

The average number of rounds played a year by female core golfers, according to NGF

with 2004, according to NGF The number of male core golfers in the United States in 2004, according to NGF

"The wrong product at a cheap price doesn't save a lot of money." - Keith Woodruff, marketing manager for ProSource One, about purchasing pesticides.

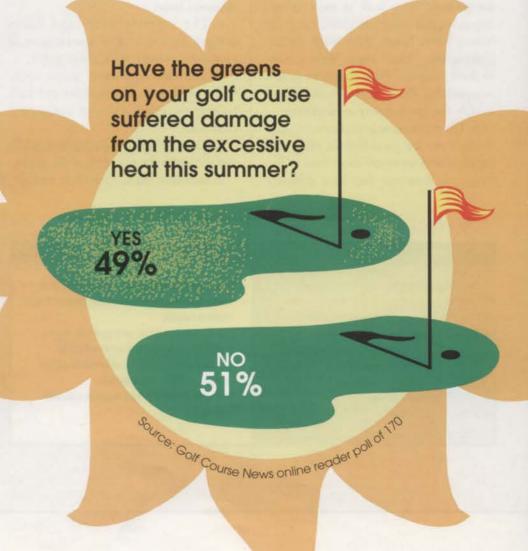
"There's a misperception that salespeople don't work as hard as superintendents. They do, but the timing is different. Superintendents do put in a few more hours, but with sales, there's a lot of prep work." — Dave Fearis, former golf course superintendent and sales representatives for PBI Gordon

"When I got into this position, I looked at it differently than as a superintendent. I asked questions such as 'Why can't we have more shotgun starts to generate more revenue?" - Paul McGinnis, talking about his position as director of golf operations at Pebble Creek Golf Resort in Peoria, Ariz.

"Paspalum is salt-water friendly, but people need to understand the fresh-water requirements to get the paspalum established. The agronomic program presented to us dictated the use of fresh water to get it established. Once it was established, we introduced the salt water." Nick Scigliano, president of Jones Mills, Pa.-based Frontier Construction about the grow-in of the Royal St. Kitts Golf Club in the West Indies



"Now, what were you saying about my bad lie?"





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Course development

The talk of the badlands

BULLY PULPIT GOLF COURSE WAS BUILT WITH A SMALL BUDGET IN UNUSUAL CIRCUMSTANCES, YET HAS EXCEEDED EXPECTATIONS

JOHN WALSH

GOLF COURSE NEWS

INTERVIEWS RANDY

HATZENBUHLER,

PRESIDENT OF THE

THEODORE ROOSEVELT

MEDORA FOUNDATION,

WHICH OPERATES THE

BULLY PULPIT GOLF

COURSE IN MEDORA,

by What's the Theodore Roos-evelt Medora Foundation.

It was created in 1986 when Harold Schafer sold his company, the Gold Seal Company, which made products such as Mr. Bubble, Snowy Bleach and Glass Wax. The Bismark, N.D.-based company had a division called

> Medora, which is the gateway community to the Theodore Roosevelt National Park. When Harold sold it, it was clear the company that purchased it didn't have any interest in Medora. So Harold ended up creating a non-profit foundation and gifted all the assets that were the holdings in this little town. It's patterned much like Colonial Williamsburg in Virginia - there's no ownership. Since then, we've been adopted by the people of North

Dakota and are supported generously by the folks around the state as we continue to add attractions and offerings for visitors.

Explain your background. How did you get to Medora?

I'm a certified public accountant, and I've been in Medora almost 18 years. I was hired as the controller.

There was a survey done about three or four years ago by our state's magazine, Horizons. Readers were asked who were the most influential people in the history of the state. Readers named four: Wild Bill Langer, who was a maverick politician; Lawrence Welk, most people recognize that name, and the other two were Harold Schafer and Theodore Roosevelt. Both of them called Medora, which doesn't have 100 people, home.

Harold Schafer was the person with resources. Another man named Rod Tjaden, who was my boss for nine years before he passed away from cancer, hired me, and I basically came out to be the controller. I

ended up doing that and then became the operations manager and took care of personnel. And when Rod passed away eight years ago, the board asked me to take over the president's role of the foundation.

Explain the background and timing of the golf course.

For as long as I can remember being here, someone, including Rod, thought it would be great if there was a golf course in Medora. I read through hand written notes of Harold Schafer's about things needed for Medora, and a golf course was one of them. But we were never able to move on it because there were always issues about water and adequate land space. A few years ago, a ranch adjacent to property we already owned was for sale, and we started to look. Bill Clairmont, a board member who doesn't golf, became the driving force for the project. He helped people see how good the project could be for North Dakota. We had a great project manager, Jack Marquart, who hiked the property - 50 hours I'm sure - and he took me out there for quite a bit of that time and said here's where this hole could be and that hole could be. I thought he was nuts, but he knew because he had been involved with golf course projects before. The course was developed quickly. Sometime in 2000, we serious said we could build a golf course. We built it in 2002, we grew it in in 2003, and we played in 2004.

How were the water d concerns abated?

First, Bill Clairmont recognized the water quality was poor and we needed to store water. So he suggested we build reservoirs. Then we hired a guy to do all the feasibility work - could the land become a golf course, could we solve the water issue - all that before we even owned the land.

Jack Marquart came up with a wonderful solution for the water problem. There isn't quality water if you were to dig a well out here, so he went back and got the water flow records from the state, and in 49 years, there wasn't a single year where there wouldn't have been adequate spring runoff to fill holding ponds. So we have about 320 acre feet of stored water from the spring runoff. Those reservoirs were constructed, and that gives us almost a two-year water supply if we needed it. That's how we solved it.

So, for the foreseeable future, there's no water problem?

No. We're always going to have to take water during the spring. If it happens that there isn't any spring runoff, which has never happened before, we could put in a well in an emergency, but we're pretty confident and comfortable with the water. The quality is still one of the challenges. But Dave Solga, our director of golf, applied gypsum and ran the water through a sulfur burner and recirculated it back into the ponds. He's been able to get the water to almost neutral.

What was the cost to build the course?

\$5.4 million, and that's everything including a clubhouse, parking lot, maintenance shop, turf equipment and golf carts. The construction of the course was right at about \$3.8 million, and that included almost three-quarters of million dollars building the irrigation ponds.

How was the course built at that cost?

The most important thing we did was hire Jack Marquart. He became our project manager. We probably went a little over. We didn't have a big budget, but we stayed pretty darn close. Jack collected the bids for the



course development



Randy Hatzenbuhler says the Bully Pulpit Golf Course is unique because of its ties to history and location in the badlands.

project. He was on the job site every single day and never left. He worked extremely well with contractors and with the architect, Mike Hurdzan, who also understood we didn't have a lot of money. But Mike came out here and saw that this is a world-class site. Between Mike and Jack, there was a philosophy of a minimalist kind of approach to designing the golf course. Some courses that we have in this state are fantastic and are as good as any place in the country, and builders moved 1.1 million cubic yards of dirt. We moved 75,000.

When we went about selecting the architect, Jack got 11 names on paper, and we narrowed it down to four. Then we interviewed four architects who are all good. Any one of them could have done the job for us, but Hurdzan was so impressive. He made two trips on his own. He had never heard of the place, but he loved the land so much. He was clearly the person we wanted to do the job. He was selected because he understood we are nonprofit and don't have any money. But he wanted to do the job. People all along the way said they wanted to be part of this because it looked like it was going to be something extra special.

We are within a few miles of a national park, and we were concerned about how

the course was going to affect the area. At the time we were interviewing, we learned Hurdzan won the most environmentally sensitive design two years in a row. That was important to us because it fit with our philosophy. We're in a pretty unique area, and it could be a potentially fragile area. He did a good job of helping us understand how the golf course could actually enhance everything that's there and even make for a stronger environment.

How was the course financed?

We went about seeking help, because as a nonprofit organization, most of the things we have done are through gifts. The first major thing that happened was the community passed a special tax to support construction - a half percent tax that's dedicated throughout a period of about six or seven years. About a half a million dollars will help pay for this golf course through that tax. The second thing was the county was very supportive. That doesn't affect the construction cost, but the county paved a road to make it an accessible place. And then primarily the lead contribution was from the Medora Foundation. We committed to taking on debt to build it.

There also are individual and corporate sponsors from around the state. There are 13 holes that were named with a donation of \$100,000, and the donation brings with it zero benefit. One hole was sponsored at a \$125,000, and three holes were sponsored with gifts of a quarter million dollars each. There are no memberships at the course, and anybody who contributed pays the full green fee. They did it because they saw it as an economic development vehicle for southwest North Dakota.

And then the deck at the clubhouse was \$250,000. There was a transportation grant for \$350,000 because there's a museum in the clubhouse.

Were there any other difficulties building the course?

Jack Marquart was to impress on the contractors that we wanted to disturb very little, so he went about creating the travel routes so the native areas weren't touched. This made for a much more careful requirement from the contractors. I suspect a lot of golf courses try to do that, and many are successful. People say they can't believe it's a second year course. Well, it was a challenge to make it that way. I can remember while we were in the construction phase, Mike Hurdzan said one of the goals of this project would be that within a year or two, people think this course was here for 25 years. It was unbelievable - that was almost the exact response people would say coming off the golf course. That was a challenge that was met.

Another challenge was working with the soil. We didn't use USGA greens mix. We used the native ground and made our greens out of that. Dave Solga worked hard to make sure we could have greens that are going to be enjoyable because the native mix isn't perfect. He screened that stuff by hand many times. Just about the time we were to seed the green, Solga brought out a machine called a Nolte because he was concerned the soil wasn't a clean enough mix. So he literally hand screened the soil on the greens before we seeded them. The environment can be harsh out here. It's badlands. We had many hot days. Hole No. 15 was reseeded five times because of the heat, wind and occasional downpour. So the elements were the other big challenge.

What type of grass was used?

Fescue with native grasses in the fairways. The greens were Seaside II, a more salttolerant grass.

What market research was conducted before the course was built?

When we first looked at it, I did my own pro forma and estimates, and our board wisely said that's all well and good, but we need to have an independent study done before we would decide to acquire the land for sure and proceed. A firm call THK & Associates out of Colorado looked over the site. It had all the demographic information and county and state population data. The thing that was really telling in its report is that it had done more than 2,000 feasibility studies, and about 400 of its studies lead to the construction of golf courses. So that told us the firm wasn't just saying build a golf course. The firm said it would rate this site in the top 5 percent or 10 percent of all the sites they had ever been asked to provide services for. But it concluded there is limited opportunity to have local play support a golf course, and it's going to have to be the traveling public that supports it. The firm drew our market area as 30 miles around. Well, when you do that, there are probably not 2,500 people who live in that area. When you're 35 miles away, there's a community of about 18,000 people. So it almost all has to come from the traveling public.

The firm projected we would have 9,700 rounds of golf in our first year of operation and during an eight year period, we could have the potential to grow to about 18,800 rounds. But during out first year, we had 13,800 rounds, and I'm hopeful that we will be around 15,000, maybe even 16,000, which would have been our year four or five projection. It's stronger than we anticipated.

Have you done any marketing of the course after it was built?

We've tried to, at least locally. In our regular marketing campaign, Bully Pulpit has been front and center. We've tried to have some media events. We've invited golf writers this spring. Word of mouth and articles like this one are probably generating the most awareness. Around here, we think about Bully Pulpit every day, but we know hardly anybody knows about us. We don't have the money to market in a broad way. We're going to have to rely on people hearing about us.

Are you getting tourist as well as people driving there specifically to play golf?

We're getting both. Medora is the state's No. 1 destination. The national park is a few miles away. Our most important asset and attraction is the outdoor Burning Hills Amphitheatre that is home to the "Medora Musical." 110,000 people come to see that show a year. Many of them come every year from the upper Midwest. What we're finding is two things: First, those people who regularly come to Medora are happy to put their golf clubs in their vehicle because they have a place to play golf when they come here. Second, the golf course has created enough buzz that people who wouldn't be coming to Medora are coming specifically because they want to play Bully Pulpit. That's the only reason I can see that we've started so much stronger than we've anticipated.

Are there any other golf courses nearby?

There are good golf courses in North Dakota. The closest is a little 18-hole community golf course called Pheasant Run in Southheart. That's about 27 miles away. Dickinson, our regional city, has a beautiful 18-hole municipal course called Heart River. There are three courses, called the triple challenge: Bully Pulpit, Hawk Tree in Bismark and The Links of North Dakota, also known as Red Mike. They're known nationally, and are all within about two hours of each other.

Have there been any studies showing the affects of the course on the national park?

The national park monitors things regularly. It's been three or four summers now, and we've never gotten any indication of concerns of any sort. We work pretty closely with the national park.

What are the rates? The green fee is \$49. On Monday and Tuesday, we have a \$39 green fee. A cart is \$15 if you take one.

Who hired Dave Solga?
I hired Dave, but he kind of selected himself because we didn't advertise. I had about five superintendents call me because they read a news brief about Mike Hurdzan building a course in the badlands. Dave had been the superintendent at Quarry at Giants Ridge Golf Course in Biwabik, Minn. He's originally from North Dakota. He drove nine hours to come see this project. He said he wanted to be back in North Dakota but was used to working at nice courses, however, when he saw Mike Hurdzan was building this he became curious. He ended up driving twice in about a 10-day period.

Being a superintendent, Dave said he'd

like to expand his career because he thought he could run an entire golf course, both the clubhouse and the course itself. He wanted the opportunity to do that and thought this looked like a great place. He sold me on the idea. He's done a great job for us. He also won the environmental management award from the Golf Course Superintendents Association of America the year before he came here. We always said we need people who appreciate the landscape and want to keep it nice.

Anything else?
One of the attractions of the site is its history. Every hole is interesting because it has a story, some of which are history related. General George Custer camped within a quarter mile of the golf course. General George Crook and General Alfred Sully were all down there. Hole No. 4 is called Custer's Wash because when you stand on the tee box, the point where he crossed the Little Missouri River on the way to the Battle of Little Big Horn is about 150 yards away. It's a subtle thing, but it adds to the players' enjoyment. Eventually, we will have a souvenir yardage booklet that tells those stories.

The last thing Hurdzan described before we built the course is why he thought the golf course would be enjoyed by people. It's always fascinating when something comes out the way someone predicts, then you have even more respect for him. Hurdzan says golfers will leave a golf course and have a certain reaction, but sometimes they won't be able to understand or even describe why they liked it as much as they did. He said if you can take golfers through two environments, that's nice. If you can take them through three, it's rare. Golfers won't be able to tell you why, but that's why they really enjoyed it. At Bully Pulpit, a third of the holes are like traditional American golf courses where you go through some trees and the holes are generously wide. About a third of the holes are close to the Little Missouri River and quite open, almost links style. And a third of the holes aren't like many places you can go, such as right in the heart of the badlands, literally hitting from butte to butte or in a valley between some dramatic badlands. Hurdzan said that's what will stick out. People will talk about the badlands holes because the course builds up to that. It was interesting that he saw that before the course was built. And he was right because people talk about it when they come off the golf course. GCN

For more information, visit www.medora.

Financial management

SMART SAVINGS

SUPERINTENDENTS IMPLEMENT VARIOUS COST-CONSCIOUS MEASURES TO IMPROVE THEIR BUDGETS' BOTTOM LINES

ROB

s the high cost of maintaining golf courses continues to increase, superintendents are forced to control THOMAS budgets more than ever and are asked to do more with less. The average maintenance budget of a superintendent is about \$425,000, according to a Golf Course News subscriber survey of approximately 400 respondents. The cost of labor and fuel, along with cost-cutting measures, are major concerns for superintendents. Even though some superintendents enjoy an almost endless budget, the majority are being creative in their pursuit of producing a healthy track within a tight budget.

Labor costs

Labor is a large portion of any budget, but attempting to operate a golf course with a skeleton crew can be counter-productive. Getting the staff to work efficiently and remain on the same page is a vital part of keeping labor costs down. Also, having the staff on the course at the right time of day or day of the week is extremely important.

Dave Herman, CGCS, at Heritage Highlands Golf and Country Club in Tucson, Ariz., spends \$678,000 on labor annually - that's roughly 40 percent of his \$1.7 million budget.

But Trent Wash, superintendent and club

manager at Ellsworth Meadows Golf Club in Hudson, Ohio, has to make due with a total budget that's roughly half of what Herman has for labor alone. The \$350,000 budget allows him to keep only two fulltime employees on the maintenance staff and three in the clubhouse.

"You can kill yourself with labor," Wash says. "We limit or curb overtime as much as possible."

Eliminating all (or most) overtime creates the opportunity to hire part-time help. Courses are able to hire people to work only a few hours for lower pay - with golf privileges as an incentive.





At Heritage Highlands Golf and Country Club (three pictures below), superintendent Dave Herman saves about \$35,000 in water, seed and manpower by not overseeding out-of-play areas.

Photos: Heritage Highlands Golf and Country Club

"You can kill yourself with labor. We limit or curb overtime as much as possible." - TRENT WASH

Whereas Wash contends with a shortened playing season in Northeast Ohio, Herman's staff works 12 months a year – quite heavily during the winter season. The added four or five months must be taken into consideration when preparing a budget. Conversely, an early spring or extended winter can force superintendents in the North to adjust their budgets on the fly.

In parts of the country such as Alabama's Gulf Coast, where rain is plentiful – and sometimes overabundant – Magnolia Grove Golf Course superintendent Scot Ribolla says weather affects his labor situation. The 54-hole facility, part of the Robert Trent

Jones Golf Trail, has a budget of \$1.1 million – 65 percent of which is dedicated to labor.

"We run lean anyway," Ribolla says. "If we get a lot of rain, instead of hanging around we go home. That saves money."

Ribolla, who's been with the Robert Trent Jones Golf Trail for 10 years (the last six as a superintendent), says he generally has a staff of fewer than 30 people, but is currently running higher because he is preparing to host the LPGA Tournament of Champions in November.

Like Wash, Michelle Frazier, CGCS, at Boston Hills Country Club in Hudson, Ohio, has a small budget – less than \$220,000. She says 60 percent of the budget is spent on labor – including her, an assistant and 16 or 17 part-time employees. To get the maximum amount of work from her staff, Frazier has implemented a very regimented schedule and doesn't allow overtime.

Scheduling for peak hours is another aspect of managing the labor budget. It would be nice to have a full complement of workers on duty throughout the day, but it's much more practical to load up employees in the early morning hours before a course is filled with golfers. Having half a staff on



financial management

Budget tips



- · Buy what's needed ... not more
- · Preorder and save
- · Take good care of equipment
- Watch overwatering
- Minimize overtime
- · Schedule labor at peak hours
- · Incorporate native areas
- · Involve members in maintenance
- · Take advantage of employee skills

the course at 2 p.m. isn't nearly as important as having an entire staff working at 6 a.m. By prioritizing when employees are on the clock, superintendents can maximize their work force.

Soaring fuel prices

Another aspect of the budget that's a concern is the cost of fuel. The price of oil reached all-time highs during the summer, and gas prices were high last year. Many superintendents accounted for a little more in this season's budget, but nobody could have predicted prices higher than \$3 a gallon. Ribolla budgeted \$28,000 for fuel this season, but expects to be over budget \$10,000 to \$15,000.

"We're way over our budget in fuel," he says. "It's fuel surcharges. We can't really pass those on to customers and say, 'That'll be \$37 for golf and \$5 for fuel.' There's not much you can do. You've still got to mow the grass."

Ribolla learned to shop around, just like when making major equipment purchases, in search of the best fuel price.

"We're really conscientious about where we get our fuel," he says. "We don't just use one company. We see who is the cheapest the day we're going to get it."

Ribolla says it might be only a couple pennies per gallon, but that all adds up. He says he'll consider the higher fuel prices for next year and will probably have to take money allotted to other areas to make up the difference.

"Costs are rising on a lot of stuff," he says. "When [the price of fuel] goes up, it all goes up."

Herman, who has been a superintendent for 25 years (the last 10 at Heritage Highlands), is concerned about the high cost of fuel, but deals with the issue in a casual manner. He says he really hasn't done anything to counter the high prices and just grins and bears it. His budget is relatively unaffected because he has his staff performing more efficiently with fuel costs in mind.

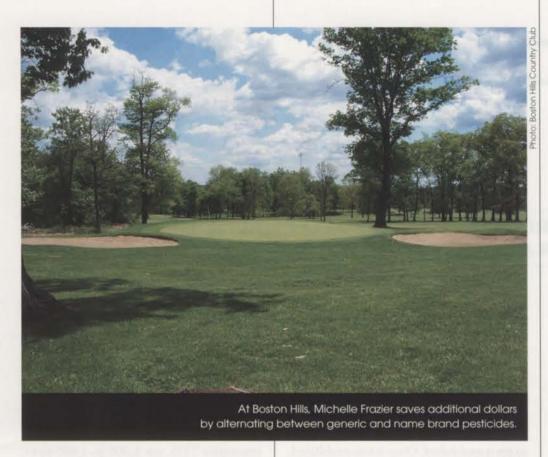
"It's not been as big a hit on me because we get things done fast," he says. "You may as well consume gas while being productive."

Cutting costs

With little that can be done to lower fuel prices, Herman cuts costs elsewhere on his course. He saves money by not overseeding out-of-play areas. According to Herman, he saved \$35,000 in water, seed and manpower by practicing this method.



At Boston Hills Country Club in Hudson, Ohio, golf course superintendent Michelle Frazier saves money by implementing a regimented schedule that doesn't allow overtime



Additionally, he preorders some chemicals and saves 2 percent or 3 percent on the purchase, while spreading payments over five months. Like many superintendents, he also chooses certain generic pesticides over their name-brand counterparts.

When it comes to purchasing parts for his John Deere equipment, Herman has most of what he needs at the course on consignment from Arizona Machinery. He saves money by limiting downtime and eliminating shipping costs. If a part malfunctions, it can be replaced right then and doesn't need to be ordered, delivered, then installed. When he uses a part, he'll call in the order, be charged for it and then will have the replacement part delivered and placed back in the shed.

"You've got to produce in this industry," Herman says about his relationships with dealers. "[Being productive] is directly related to the dealership and how it can support you. Plus, they know you're not going to go buy from someone else ... and there are plenty of people to buy from."

Herman says having parts on consignment is fairly common, but he also saves money by having chemicals on consignment from Simplot Partners. Heritage Highlands stores chemicals on-site and pays as they're used. Simplot Partners conducts inventory on a set schedule at the course and charges for what's been used. Herman thinks having chemicals on consignment is rare because companies worry the amount used will be argued. That's not an issue with Herman because he says the area is under lock and key and he knows the company well.

Water management is another area where superintendents can cut costs. Frazier and her staff water greens in the morning after they've been mowed but don't water the fairways - they just mow, fertilize and treat for dollar spot every now and then.

Frazier saves on chemicals by using generics and name brands - alternating between

the two. To eliminate significant time spent weed-eating, Frazier uses Roundup around trees. She also preorders chemicals to save 5 percent. And before ordering, she takes bids because shopping around can make a big difference.

At Boston Hills, almost everything is done in-house. Frazier says she will farmout cart path work and every spring hire someone to deep tine the course because it costs less than doing it herself. By doing most of the mechanical repairs in-house, Frazier says she saves a lot of money.

"It saves us from having to have a fulltime mechanic on staff," she jokes.

Frazier had the choice of hiring a full-time mechanic or an assistant superintendent when she took the job, and she chose an

Ribolla cuts some costs by doubling-up staff responsibilities.

"We try to be a little more creative with

mowing," he says. "We may send out one guy to mow instead of two. Instead of just mowing tees, maybe he mows tees and collars."

Like Frazier, Ribolla contracts-out few jobs. Most work is done in-house, with a few exceptions. Hurricane Cindy blew through Alabama this year, and Magnolia Grove lost a bridge. The repairs had to be contracted-out. Bunker renovation on the 54-hole layout also was done through an outside contractor.

Advice

Whether new to the industry or a veteran of the golf course maintenance business, Ribolla says diligence is key to maintaining a budget.

You have to be really conscientious and shop around," he says. "Be careful how you spend the money. Be in tune with the spending and don't delegate the spending to anyone else.

"Shop around," he adds. "There's often a big difference in price."

Herman has learned a lot in his quarter of a century manicuring golf courses and subscribes to the axiom: The early bird catches the worm.

"Get as much work done as you can before play hits," he says. "That's been the biggest cost savings.'

Herman also suggests setting the water budget on the average of the past five years and not on last year's number alone.

"Don't cut yourself short," he says. "A budget is a guideline of what you're going to spend ... it's not always what you will spend. Some months you're over and some you're under. You just hope it comes out in the end."

Awareness of where things are and determining what can be used help Frazier maintain her budget.

"Everything has to be watched," she says. "You can't waste anything at all. I'm like a pack rat. If something goes down, we save it so maybe we can salvage something off it."

Frazier says she has listened and learned from the mistakes of those who came before her.

"Listen to your elders and superintendents who've been there a long time," she says. "They'll teach you tricks of the trade that'll save money. If you don't listen, it's going to cost you money."

Like any superintendent, Frazier would like an unlimited budget, but the one she's got serves her just fine.

"It's a great challenge for me," she says. "And I love the challenge." GCN

Off to a quick start

FOR FASTER GROW-IN, FRESH WATER IS USED TO ESTABLISH SEASHORE PASPALUM ON A GOLF COURSE IN THE CARIBBEAN

HAL

ith a full season of golf traffic almost under its belt, the new island course at Royal St. Kitts PHILLIPS Golf Club in the West Indies, which was designed by architect Tom McBroom and built by the Frontier Construction Co., has passed from a seashore paspalum test case to a working model - with some important lessons learned.

> Because it remains a relatively untried turfgrass, every new paspalum course provides real-world information to superintendents and contractors. Royal St. Kitts Golf Club - the centerpiece of the St. Kitts Marriott Resort & The Royal Beach Casino - is no exception. Prospective paspalum users should be advised of the turf's distinct needs when it comes to establishment (fresh water is preferred) and continued maintenance (be careful to save fresh water for other plantings),

according to Nick Scigliano, president of Jones Mills, Pa.-based Frontier Construction and grow-in superintendent Greg Jackson.

"Paspalum is salt-water friendly, but people need to understand the fresh-water requirements to get the paspalum established," Scigliano says. "This was our first paspalum job. The agronomic program presented to us dictated the use of fresh water to get it established. Once it was established, we introduced the salt water."

With a project like St. Kitts, in which the decision to use paspalum (Sea Isle I on the fairways and Sea Isle 2000 on the greens) was dictated by the paucity of available fresh water, Scigliano points out the significant silver lining: "This stuff is really aggressive and grows fast," he says. "Compared with Bermudagrass, I'd say it establishes 25 percent faster."

That quick establishment is the reason why fresh water is recommended during grow-in, according to John Holmes, global sales manager for Georgia-based Phillip Jennings Turf Farms, a supplier of paspalum.

"Fresh water during grow-in isn't mandatory, but when you use salt water to grow the golf course in, it takes longer," Holmes says. "We recommend you find the freshest source of water possible. Otherwise, you have to rely on rain water to flush the soil of those salts. We recommend switching over from fresh water to salt water about 90 days after planting."

Jackson - who is now in Fiji growing in another Marriott Golf-developed course using another paspalum strain, Sea Isle Supreme - followed these recommendations as best he could. And where he deviated, the results were predictable.

"I grew-in the entire golf course with fresh water," he says. "However, toward the end of the grow-in, I was forced to blend with brackish water because we planted so many holes so quickly, and the desalinated water was insufficient to keep up. We began blending on the last two holes planted and got less than desirable results. The total dissolved salts was high enough to desiccate the young sprigs, resulting in a resprig after sufficient fresh water became available. If you were so inclined to use water with a reasonable TDS, say 3,000 to 4,000 ppm, you may be able to pull it off, however, this would lengthen your grow-in time."

Before his departure to Fiji (Peter Stormes took over as Royal St. Kitts superintendent in late March 2005), Jackson was working on a system to pipe in straight sea water (34,556 ppm) from the desalination plant to the irrigation pond, then mix it with large volume aerators. This system was designed to save fresh water costs, help the suppression/desiccation of weed growth and give the turf its required dosage of sodium.

"As a true halophyte, this turfgrass needs a certain percentage of salt in its diet to perform and function efficiently," Jackson says. "The plan would be to use enough salinity to take care of the above-mentioned issues, but continue to flush with fresh water to keep the salts moving downward in the root zone."

Stormes arrived at Royal St. Kitts from Jamaica, where he was an assistant superintendent on the White Witch course at the Ritz-Carlton Rose Hall. Tifdwarf Bermudagrass was the turf choice there. Stormes says the Sea Isle I fairways at St. Kitts require some verticutting to keep them where they should be, but the main benefit is water.

"I can't believe how little it requires," he says. "In Jamaica, the Tifdwarf needed something every night, and in some spots, we couldn't keep up. Here, it's every three nights.

AT A GLANCE

Royal St. Kitts Golf Club

Location: Basseterre, St. Kitts West Indies

Architect: Tom McBroom

Builder: Frontier Construction

Owner: Vic DeZen and the St. Kitts

government

Management Co.: Marriott Golf Grow-in superintendent: Greg Jackson Director of grounds: Peter Stormes

Yardage: 6,900

Par: 71

Fairways: Sea Isle I paspalum Greens: Sea Isle 2000 paspalum

Construction started: December 2001 Construction ended: November 2004

Total cost of project: \$7 million

The decision to use paspalum on the course at Royal St. Kitts Golf Club was dictated by the paucity of available fresh water. www.golfcoursenews.com | October 2005 |> 33

design case study

"We're probably putting on 3,000 to 4,000 parts per million of salt," he adds. "We have a desalination deal here. We pump it into the irrigation lake, but the salt leeches up into the pond. But it's not really that salty. From taking Dr. Duncan's seminar, it can handle a lot higher than that."

Ronnie Duncan, Ph.D. is the paspalum pioneer who worked at the University of Georgia.

The trouble is, other golf course plantings typically can't handle that amount of salt. Scigliano warns that once the switch to brackish irrigation water has been made, the onus moves to the delicate balance between accommodating the paspalum, which thrives on the salt water, and the other plantings around the golf course that don't.

"Great care needs to be taken in the de-

sign and installation of the irrigation system to control exactly where the salt water is put down, so only the salt-water-tolerant material receives it," he says. "When you switch to salt water, you have to be very careful with all the plantings around the golf course. If you get too much overspray with the irrigation, the other plantings don't care for it. In fact, you can kill this stuff deader than a door nail."

Get it done

Before the course was grown-in with paspalum, development challenges had to be overcome. Even though Frontier Construction is an experienced tropical contractor – it recently completed three new courses in Puerto Rico and one in Costa Rica – it wasn't the original builder at St. Kitts. Canadian contractor Evans Golf started the project, but Evans opted out in 2002 when the project was delayed because developers were completing construction of a desalination plant, according to McBroom. Frontier was retained at the end of 2003 to finish the job – the back nine, practice range and extensive finish work on the front side.

"When the opportunity arose to bring in another contractor to finish St. Kitts, Doug Show and Frontier were the first contractors I thought of," Jackson says. "Doug's workmanship is meticulous, their equipment is in great condition, and they're always ready to work. The finish work was perfect. And if there were any concerns, they were always properly addressed."

Show is Frontier's construction project manager.



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Tuesday	5	1/2	1.70	1,	. '.	2
Wednesday	5	1/2	2	**	1,	8/2
Thursday	5	Ye	2	4	1	84
Friday	5	1/2	2	12	1	8%

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St. Kitts is a tough place to work for a contractor, according to McBroom.

"You have to import everything, which leaves you vulnerable on a lot of fronts," he says. "We hadn't worked with Frontier before, but we were very happy with the job they did. Together, we produced one hell of a product."

Aside from working with paspalum, construction of the 6,900-yard, par-71 layout was straightforward.

"It was a typical Southern job where you have to excavate all interior waterways to get the course to an elevation where it can drain," Scigliano says. "By excavating a system of lakes, we created these waterholding features and brought up all the surrounding golf holes. We got them up above flood elevation, which is a pretty standard practice. We just shaped it out, completed the irrigation system, performed all of the clean up and grassing work, and the remaining cart path work.

'The course features are all pretty subtle, but McBroom's people did a great job of keeping everything very visible," he adds. "You can see probably 75 percent of the sand in every bunker on the golf course."

Scigliano says he hopes golfers appreciate the sand views because all the bunker sand was shipped in from the mainland at great expense. Jackson and Frontier were understandably determined to ensure the sand didn't go anywhere, so all the bunkers were outfitted with synthetic liners similar to those lining a lake.

"That was tedious work, and Greg's crew handled most of it in-house," Scigliano says. "But they paid a lot of money for that sand, and they couldn't afford to lose it."

Unfamiliar territory

Looking back on the project, Jackson is appreciative of Marriott's support on St. Kitts, regarding the sand and paspalum. The first nine at St. Kitts was a learning experience for Jackson because it was his first time working with that variety of turfgrass.

"Fortunately for me, the owners were very generous during the grow-in, which allowed me to experiment with various fertilizers until I was able to figure out what worked the best," Jackson says. "But I can't say enough good things about using seashore paspalum. The fill material, as well as the topsoil, was a calcareous sand that was extremely high in sodium and bicarbonates. Due to the salt load in this soil, I was forced to apply judicious amounts of gypsum and deep-tine aerate into the soil profile both before sprig planting and during and after establishment. Some golf holes required as much as five tons per acre of gypsum and heavy flushing of fresh water before turf began to respond to fertilizers and started growing normally."

Jackson says he started out on a 90-day granular grow-in program, but kicked the turf over to 100-percent foliars around the 80-day mark because of the poor response to the granulars on many of the holes. He says the roots were tied up by the sodium.

"I was tank mixing everything but the kitchen sink to foliar feed the turf, but got my best responses with Pure Liquid Seaweed (cytokinen), wetting agents, micronutrients, manganese and a significant amount of Primo," he says. "Because Primo had not been approved for use on paspalum and documented usage was almost nonexistent at that time, I had to be very cautious.

"But the turf really took off after the all the gypsum applications," he adds. "And once I found a liquid fertilizer cocktail the turf responded to, everything sort of fell into place. By the time the last nine holes were built, I recognized the bad areas and addressed them accordingly, so grow-in of the last nine wasn't nearly as mind boggling as the first."

For all the work Jackson and Frontier did to perfect the grow-in process, McBroom can take credit for specifying the paspalum to begin with.

"We actually specified it three years ago when it was just coming onto the market," McBroom says. "We weren't especially happy with Bermudagrass, but the issue in St. Kitts is always the amount of fresh water we would have. And quite frankly, we liked the color and the density of the paspalum. It has required a higher level of maintenance than we anticipated, and you have to topdress the bejesus out of it to get it to fill out. But given all that, we're all very happy with it. It's a terrific grass." GCN

Hal Phillips is president of Phillips Golf Media. He's based in Gloucester, Maine, and can be reached at onintwo@maine.rr.com.



Some holes required as much as five tons per acre of gypsum and heavy flushing of fresh water before turf began to respond to fertilizers and started growing normally.

Market dynamics

MANY FACTORS DETERMINE HOW MUCH AND WHAT PESTICIDES SUPERINTENDENTS WILL BUY

JOHN WALSH

eather, the environment, budgets, turfgrass variety and disease all affect what pesticides golf course superintendents will buy and use and how much they use. Their decisions also will impact the future of the pesticide market in the golf industry.

The hot weather pattern the country experienced this summer put pressure on many superintendents to keep turfgrass green and free from disease. That type of pattern is more favorable to pests than turf and can lead to more pesticide use.

"It was a bad summer, and there hasn't been one this bad in about 10 years," says Joe DiPaola, Ph.D., golf market manager of Syngenta Professional Products. "Hot, challenging and different weather can lead to more money spent on preventive maintenance of turf. In this weather, if a disease gets out of hand, it will be rampant. Instead of more preventive treatment, other superintendents will do more spot treatment, but you need more people for that."

Because of the hot weather, Bayer Environmental Science sold more fungicides to superintendents this summer than last, according to Mike Daly, director of marketing, green.

"We're in a weather-related business," he says. "The last couple of years experienced pretty good turf-growing weather in the summer. But this summer, hot weather combined with rain made it difficult to maintain turf."

Budgets, too, influence how many pesticides superintendents buy and apply, but they don't seem to be too restrictive.

"There are a lot of misconceptions that there are tons of pesticides being applied,

when in reality, superintendents want to use just enough to control the disease because of budgets," Daly says. "They want to use only what's needed. When budgets are tight, the one thing you can't have happen is to have turf on the course not look its best. Superintendents won't say, 'I'm going to let it go.' There are limitations to what superintendents can do, but it's not an option to say to management 'Let's not spend money on maintaining the turf."

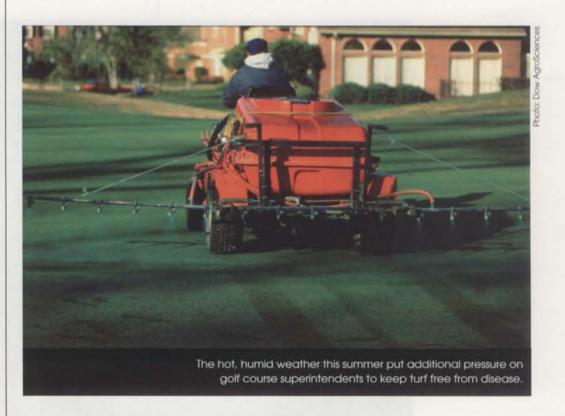
In addition to weather and budgets, new turfgrass varieties can make pesticide applications more complex.

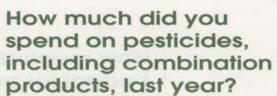
"Each time a new cultivar is introduced, you set yourself up for new disease probHow much did you budget for pesticides, including combination products, this year?



About 46 percent of superintendents budgeted between \$10,000 and \$50,000 on pesticides this year.

Source: GCN pesticide usage survey of 400 readers







About 47 percent of superintendents spent between \$10,000 and \$50,000 on pesticides last year.

Source: GCN pesticide usage survey of 400 readers

lems," says Doug Houseworth, Ph.D., turf and ornamental technical service research and development manager for Arysta Life-Science. "Take Crenshaw Bermudagrass.

That was the hottest thing going, but it was susceptible to dollar spot. With cool-season grasses, you have fescue, rye, bent, blue and Poa. There are a half a dozen species you have to deal with."

Registration

In addition to what influences superintendents when applying pesticides, there are other market dynamics that will affect what superintendents will be able to purchase and

The pesticide registration process is the same for all pesticides, according to Brian Steinwand, ombudsman, biopesticide division, office of pesticide programs at the Environmental Protection Agency. He says the only difference is the data that's needed by the EPA to register a product. If a company wants to register a generic product, it's free to approach the original registrant after the patented product has been on the market for 15 years to let the original registrant know it wants to bring to market a me-too product. Then the two companies negotiate for the purchase of the data needed to register a me-too product. The original registrant then can allow or deny the purchase of the data. Multiple companies can register similar products.

After 15 years, a pesticide has to be reregistered so the EPA can find out what has changed in the market and what was learned about the product during that time.

Another aspect of registering a pesticide is the fee charged. Up-front fees can range from \$4,000 to \$40,000, according to Steinwand. The fee guarantees a timeline of when a pesticide will be reviewed and takes the guessing out of registration. There's also a registration data fee, and an annual maintenance fee for all registered pesticides.

What's in store

Aside from registration, turfgrass research and distribution also factor in to what's available for superintendents.

Scott Eicher, senior product marketing manager for herbicides for Dow AgroSciences, says there's a better public perception of granular pesticides because they don't drift. Also, there's less exposure compared to liquid pesticides, and they don't require posting notification.

'Golf tends to be a sprayable market, especially with fungicides, but, in the short term, we may see more of a shift to granular with insecticides and herbicides if it fits a program," Eicher says. "But it won't go 100 percent to granular."

Long term, Eicher says scientists are working on insect-resistant turfgrass by finding a gene in one plant that's tolerant to glyphosate and taking that gene and making it part of the genetic makeup of another plant so that trait will be found in the seed the plant produces. But a variety like that might not be available for another five to eight years.

Additionally, service from distributors is becoming more important as golf courses carry less inventory, even though most carry an emergency supply, according to Bill Brocker, v.p. of marketing for PBI Gordon Corp.

"Most courses don't want to store chemicals," he says. "There's a growing concern about the toxicity of the products, especially with handling by employees and transferring anything on to the golfer."

Overall, superintendents are managing golf courses to benefit the environment and the people who use them, and pesticides are a part of that.

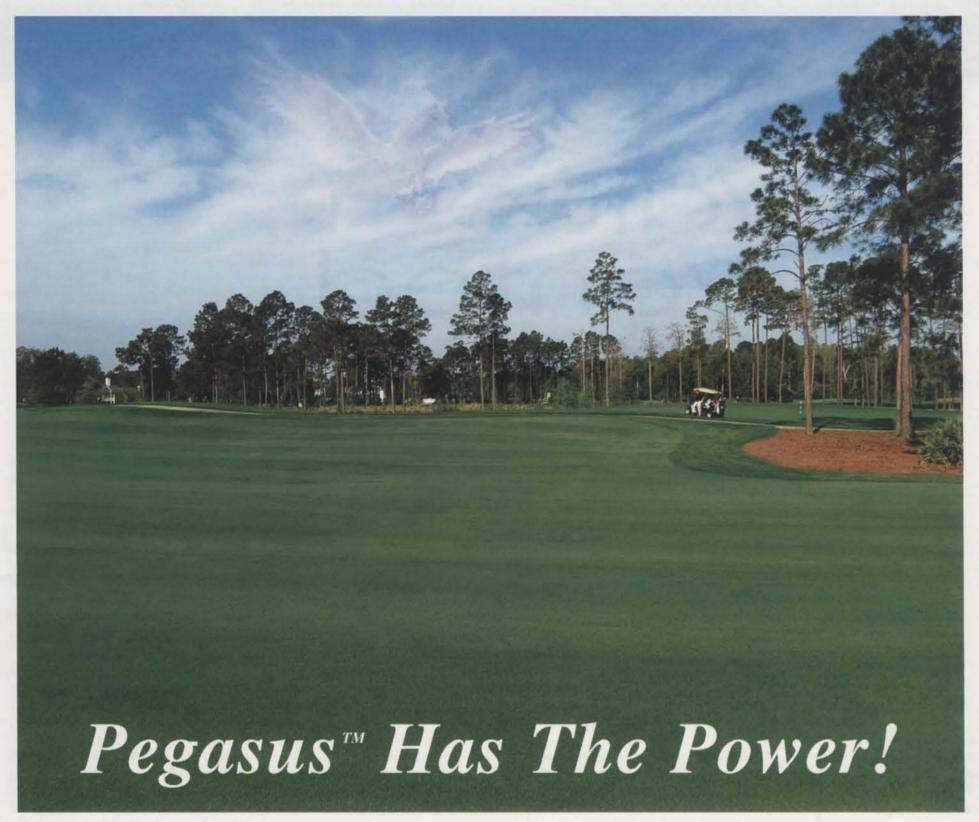
"It's not just the products used, but it's how they're used so they have the least affect on the environment," Eicher says.

In the end, pesticides are part of improving the golf course business.

'Superintendents realize they're in a competitive market, so they're doing everything within their budgets to give golfers the optimum conditions because it helps bring back golfers," Brocker says. GCN



Even though golf tends to be a sprayable market when it comes to pesticides, the industry might see a shift to more granular products in the future



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Pesticide special report

Value wanted

WHETHER SUPERINTENDENTS PURCHASE GENERIC OR NAME BRAND PESTICIDES, SERVICE REMAINS KEY

JOHN WALSH

olf course superintendents are no strangers to spending money wisely. They find ways to save money and still produce well-manicured golf courses. One of those ways is to purchase generic or post-patent pesticides. According to a recent Golf Course News survey of 400 readers, 59 percent say they buy generic pesticides. However, some question the service that comes with purchasing them. Pesticide suppliers say there are pros and cons to the generics available on the market.

Choice is good, according to Mike Daly, director of marketing, green for Bayer Environmental Science.

"The end-user having choice is a good thing, and there's nothing negative about it," he says. "That's the market we're operating

Owen Towne, president of Phoenix Environmental Care LLC, says the number of products coming off patent is important to superintendents because it makes the number

of purchasing choices available greater.

Three of the top five fungicides, four of the top five herbicides and three or four insecticides are coming off patent, making key compounds available," he says. "Primo and Merit are two biggies that are coming off patent this year or next. Whether that's good or bad depends on how superintendents spend their money. Most people agree that choice is good, and off-patent products give superintendents a choice.

"As a generic manufacturer, my concern is other generic manufacturers selling solely on price point and not trying to enhance the product or support the market," he adds. "If superintendents are strictly buying on price, they'll be buying from companies that don't support the industry."

Towne says the larger companies that offer patented or brand-name products, such as Syngenta and Bayer, have done an excellent job of telling their story about supporting the industry through loyalty programs and financial support of associations and seminars.

"I came up through Ciba and Novartis, so my view is that Phoenix balances industry support and enhancing old formulas," he says. "We're saying superintendents should be buying more than the active ingredient because suppliers and manufacturers are doing a lot of work to make the active ingredient as strong as possible. There's a segment of the market that will always buy the cheapest product and another segment that will always buy branded. We recognize those two groups but believe there's a segment that wants to save money and support the industry."

From a distributor's point of view, Towne says competition from generic manufacturers puts more pressure on price.

"People used to say all generics are alike, but that's not the case," he says. "Superintendents need to look at the label and look at the pesticide on a case-by-case basis. On the [agriculture] side, the number of generic manufacturers has been common since the 1980s; but in the specialty segment, the increasing number of generic pesticide manufacturers is relatively new."

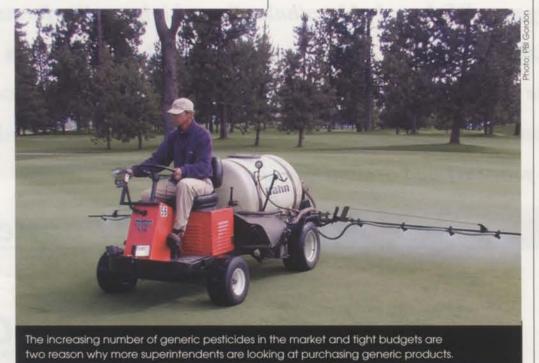
In 2004, less than 8 percent of the pesticide market in the golf industry consisted of true generics, according to Gary Curl, president of Specialty Products Consultants LLC. Curl qualifies true generics as post-patent products supplied by a manufacturer other than the original patent holder.

Statistically, the number of generic products available and the distributors for those products has increased significantly during the past three years, according to Joe DiPaola, Ph.D., golf market manager of Syngenta Professional Products. However, DiPaola says sales of generics declined from 2003 to 2004 partly because superintedents understand the need for high-quality products from a primary manufacturer and the value of that.

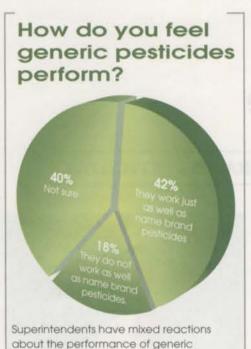
"It's more than a name," he says. "It's the intangibles such as access to people when

Please visit the GCN Web site - www. golfcoursenews.com/ research - to view the complete pesticide usage survey





you're in an emergency, counting on the product for what it is, being delivered on time and the relationship with the channel that delivers the product.



Source: GCN pesticide usage survey of 400 readers

"If there is an environmental emergency, who can analyze the soil?" he adds. "That's not a simple or cheap thing to do. If there is a fire or flood and you have pest control products involved ... it becomes a people thing as opposed to how much a case costs."

But companies such as BASF try to solve some problems with generics.

"We offer both proprietary and post-patent products and use plants, technology and quality assurance to make sure the quality is there," says Kyle Miller, senior technical specialist for BASF Professional Turf & Ornamentals. "We have a lot of people with formulator expertise behind the generic products we offer.

'Superintendents are much more inclined to look at post-patent products because there's a lot of that kind of product in the market and budgets are tight," he adds. "Those are two reasons why superintendents are looking at generics now, more than they have in the past. But you still have superintendents that don't look at post patents because they're comfortable with name brands."

The golf industry is past the midpoint of the generic influx to the market, according to Bill Brocker, v.p. of marketing for PBI Gordon, but he hasn't seen generics make much of an inroad and says relationships

"Whether the chemistries superintendents use are on or off patent, they value the relationship with suppliers rather than the absolute price," he says.

Brocker agrees with Towne and says some generics aren't good from a service standpoint.

Whether the companies that sell generics are able to provide the service superintendents need depends," he says. "As companies' margins go down, it's harder to keep tech support in the field. There has to be a level of service if you're selling to professionals. What will work in the ag market might not work in golf."

Nick Hamon, director of development and technical services for Bayer Environmental Science, says generics and their encroachment in the golf industry is always a concern for the company.

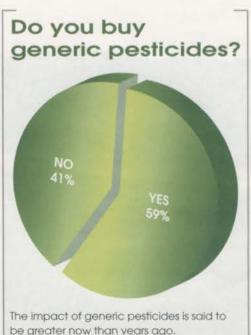
"However, Bayer differentiates itself by the quality of our products and the technology and guarantee behind them, as well as the technical support we provide to customers," he says. "Sometimes generics can work, but there is a risk attached - the cost savings may not outweigh the associated risks.

Whether generics are good or bad depends on the number of players and the discipline they have, according to Tom Kroll, insecticides and fungicides product manager for Arysta LifeScience.

"The concern is the issue of servicing and the need to retain value," he says. GCN

Buying name brand vs. generic pesticides

- Know what you're buying and how to apply it correctly. Have you used the product successfully in the past?
- If you need technical support, find out what support is offered or available before buying and using the product. The level of product support requires research, such as with branded products. Companies that only sell generic products might not be capable of supporting you as much as companies who produce generics and branded products or just branded products. There are various levels of support to consider: manufacturer, distributor and formulators. Ask the company selling generics if it will provide performance guarantees.
- Cost is an important factor. However, if a product doesn't perform well and there are no performance guarantees, the result is no monetary savings, and you'll incur additional costs by having to purchase more product along with the labor costs to reapply. Cost is easy to compare once you understand and compare a product's active ingredient. The main cost drivers are: quantity of active ingredient in the container as a total percentage and the quality of support from the manufacturer that is going to be offered.
- A common myth is that generics don't perform as well as branded products. However, to receive EPA registration, the active ingredient in generics must have the same technical merit as the current manufacturer branded product.
- Check the formulation. Sometimes generics are formulated slightly different than the branded product, therefore, you must read the label carefully to make a direct product comparison.



be greater now than years ago.

Source: GCN pesticide usage survey of 400 readers

The great chemical debate

THE CHOICE BETWEEN GENERIC AND NAME BRAND PESTICIDES

DAVID WOLFF

Brand name versus generic. It's a decision people face every day – at the supermarket, at the pharmacy and at the hardware store. For some golf course superintendents, the choice of which chemical to use is simple. For others, the issue is more complicated.

Brand name supporters

Superintendents who favor brand name products say they aren't the same as generic pesticides. Hundreds or thousands of molecules must be screened to identify one molecule that has potential value as a fungicide, herbicide, insecticide or plant growth regulator, according to manufacturers. Companies say they discover these active ingredients through large investments in research programs.

Although the original molecule becomes available when the patent expires, the prime manufacturer can protect the recipe for synthesizing and formulating the product as a trade secret.

Manufacturers of branded products maintain Environmental Protection Agency registrations. Additionally, they continually invest in the proper stewardship of their products and respond to market and customer needs with improved formulations and packaging.

Finally, manufacturers give back to the industry in the form of scholarships, speaker sponsorships and support for events such as the annual Golf Industry Show.

Jimmy Angelotti, superintendent of Dub's Dread Golf Club in Kansas City, Kan., has never bought a generic chemical.

"I'm skeptical of generics," he says. "I don't buy generic pills from doctors. Dub's Dread was established in 1964, and with old greens, I'm on a strict preventive maintenance program. I don't wait to see what's going to happen because by the time I see a disease, we're in big trouble.

"Anthracnose is a huge problem on greens in this area," he adds. "If that sets in, it takes over and we're done. It will wipe out every blade of *Poa annua* on the greens. If I lost a few days of play because I used a generic chemical, I would be very upset. That's how I look at it."

Angelotti admits he doesn't have a sales representative who handles generic products. However, he keeps an open mind.

"There are many factors to consider when purchasing chemicals, and cost is huge," he says. "I spend a lot on chemicals because our greens need it. But if I can save money, I will. I can use those dollars somewhere else."

Never looked back

Tom Harrison tried a generic fungicide 15 years ago and hasn't looked back. The Jimmy Angelotti has never bought a generic chemical for Dub's Dread.

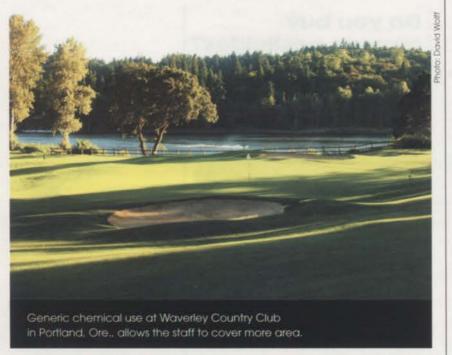
superintendent of Maple Bluff Country Club in Madison, Wis., uses four generic chemicals and will probably add two more when the patents of brand name products expire this year.

"The basic ingredients of generic products are the same as those of prime manufacturers," he says. "I'll try them, and in many cases, they work better; so what's the difference? This year I'll save \$2,000 to \$3,000 in my fungicide budget using generic products. That's nothing to sneeze at. There's money out there to be saved."

Harrison refutes the notion that research used for generic products is inferior.

"Most of the chemicals used on golf courses were originally developed for the agriculture industry, so the money has already been spent for research," he says. "The turf industry represents a small part of the revenue generated by these chemicals. We're just the tail wagging the dog."

Bob Senseman, superintendent of Oswego Lake (Ore.) Country Club, expresses





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pesticide special report



a similar view. He has been at the 18-hole private course for 10 years and was a USGA agronomist in the Northeast for

"I take generic medicine, and if I put that in my body, I can put generic chemicals on a golf course," Senseman says. "I don't go out of my way to look for generics, but sometimes there aren't any differences. The active ingredient is the same, and the control is the same. I use them and save money, so I don't see why I shouldn't keep The comparable generic product is \$225 for one gallon. I don't have to have 10 gallons sitting around.

Senseman says it's business, plain and

"I will still buy brand name products, especially if I need something in a hurry, and generics aren't available," he says. "However, I owe it to my employer to save money where I can. A dollar or two per pound is insignificant, but we're seeing savings of \$50 to \$100 a pound for some products. That's big money. It can add up to two or three additional applications a year."

On the fence

John Alexander, superintendent of Waverley Country Club, Portland, Ore., is on the fence when it comes to brand names and

"I understand what the big companies do for the industry, and I don't want to totally move to generics, but I have no problem using them," he says. "I save money with generic products, and in some instances, we do a better job because we can cover more area. I feel I should get the most bang for my buck."

Chemical formulation is important to Alexander.

"I take generic medicine, and if I put that in my body, I can put generic chemicals on a golf course."

- BOB SENSEMAN

using generics. I haven't noticed any failures or a difference in efficacy."

Senseman contends large manufacturers wouldn't invest a lot in the golf industry unless there was money to be made.

We had two fungicides from the same manufacturer with different names that did the same thing," he says. "We paid an arm and a leg for the chemical designated for turf, while the product used in the agriculture industry was half the cost with twice the active ingredient. Unfortunately, we couldn't buy it for our course."

Senseman has seen the use of generics increase during the last two years.

One of our local distributors introduced generics because he couldn't get package deals from large manufacturers," he says. "We have to buy some brand name products in bulk to get a good price. For example, a brand name fungicide costs \$300 a gallon, and \$225 in a link-pack deal.

"Once in a while we'll get a product with a water soluble bag that doesn't disperse well and clogs spray nozzles," he says. "Dry flowables aren't that dusty. I can pour them into my tanks without dust, and they're easy to use. That makes a big difference to me. Some of the generics are awesome when it comes to that. Daconil Ultrex is a great fungicide, but Concorde DF is very similar. It mixes beautifully and is very clean. I'm not exposed to the chemical. The generics have done a great job with that. I haven't seen any control issues with the generic fungicides I've used. For me, they work every bit as good as brand names.'

Recently, Alexander used a generic weed killer and says the savings were huge.

"I paid \$50 a gallon for the generic, as opposed to \$110 a gallon for the brand name product," he says. "Generics have pushed the big companies to sharpen their pencils."

At Chalet Hills Golf Course in Cary, Ill., superintendent Jeff Leonard's decision to use generic chemicals is made easier because they work well for him.

"I use two generic fungicides to treat dollar spot," he says. "They are very good, proven chemicals and are less expensive. That makes the decision a little easier for me. With generics, in most cases, the percentage of active ingredient is the same or higher. As a result, we don't have to buy as much or store as much."

Two major brand name products, Primo and Merit, are coming off patent this year, according to Leonard.

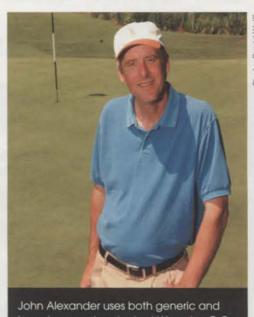
"Primo will have a big impact because we use a lot of it here," he says. "The price has got to drop, and that will be great for us."

Looking for answers

Each superintendent uses a variety of sources to find the chemical that's right for his course. Chalet Hills is a member of the Chicago District Golf Association.

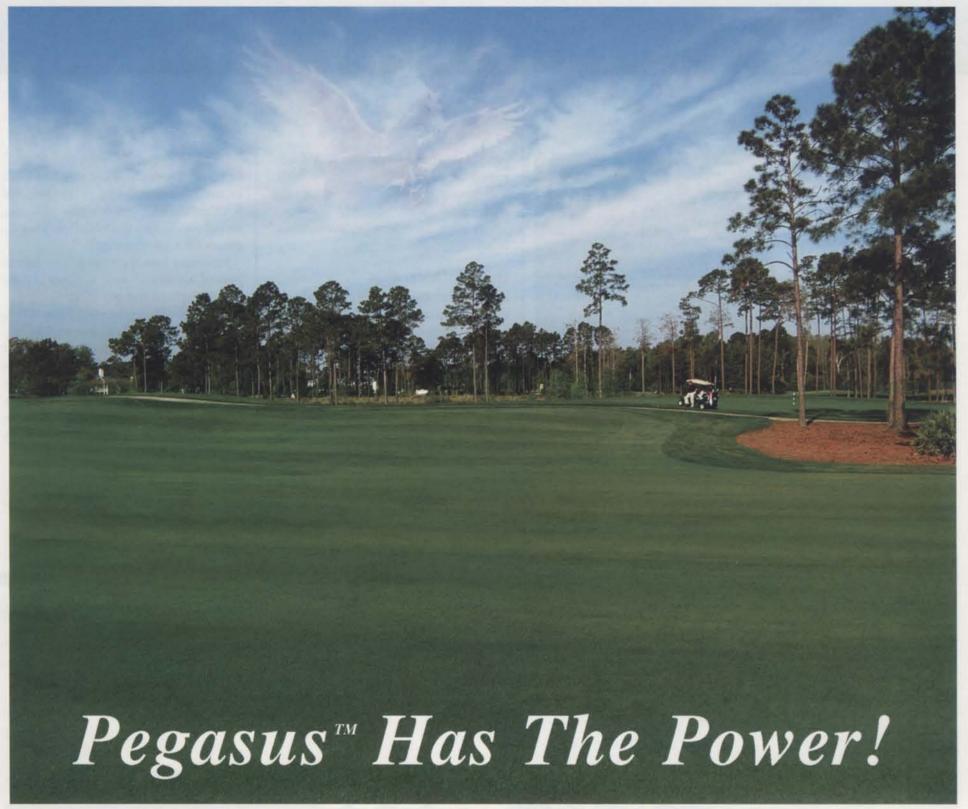
"The association has a short course for research, and we benefit from the information they gather," Leonard says. "Together with the University of Illinois, they also sponsor an interactive turf Web site. It tells us what diseases we should be looking for, and is a very useful tool. I also use a consultant, so we're not just spraying without knowing what's working. Chemical sales representatives are good resources, too, because they see a lot of courses. They know what's going on in the area."

Harrison has been superintendent at Maple Bluff for 36 years and conducts his own research when buying chemicals. Early in the year, he sets up his program for the



brand name chemicals at Waverley C.C.

Coming next issue: Part II of the pesticide special report that includes articles about product spectrum, supplier strategies and distribution philosophies.



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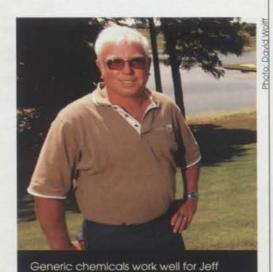


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pesticide special report



season and contacts four suppliers to buy about two-thirds of the chemicals he will

Leonard at Chalet Hills Golf Course

"Price is important, but I also need suppliers who will give me good service," he says. "I don't want to scramble if I need something right away."

Alexander values the opinions of other superintendents.

"We learn so much trading information," he says.

The bottom line

Regardless of their position on brand name and generic products, superintendents agree budget concerns drive many purchasing decisions. Last year, Angelotti's chemical budget was \$32,000, which included \$15,000 spent on greens.

"My budget isn't very large, and I can't afford to make mistakes buying chemicals," he says. "If a product is inferior, it will break down more quickly, and if it rains, it doesn't hold as well. Those are the factors I look at. And cost is huge. I can't afford to put down another application."

Leonard's chemical budget is tight, too.

"I'm being squeezed like everyone else," he says. "Play declined last year, and I had to cut out a few things. In the past, we fertilized the rough twice a year. This year, we cut out the spring application. That accounts for a lot of money."

Senseman says there are several factors beyond his control, such as wages and the cost of fertilizer, fuel and utilities.

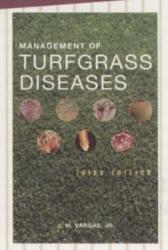
When the budget isn't stretching, I have to look at line items I can control," he says. "I feel a fiscal responsibility to do the best I can with the budget I have. I check prices and use competitive bidding. Sometimes the best product costs more, and I have to go with what's right. But when there are simple alternatives, such as generics, I'll take advantage of those savings." GCN

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



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Management of Turfgrass Disease, 3rd Edition

\$110 J. M. Vargas, Jr. ISBN: 0-471-47411-8, Hardcover, 336 pages, November 2004

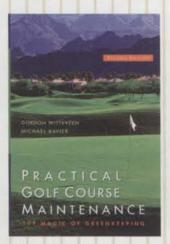
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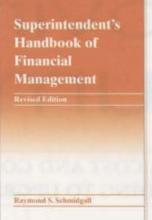
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Gordon Witteveen, Michael Bavier ISBN: 1-57504-047-6, Hardcover, 280 pages, July 2002

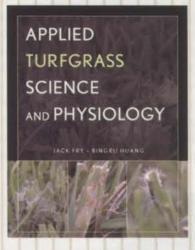
Practical Golf Course Maintenance has hundreds of helpful tips you can use every day! Presented in a step-by-step format, it includes advice on maintaining consistent bunkers, sand topdressing and aerifying, using chemicals and fertilizers safely and effectively, irrigation principles and techniques, mowing techniques for greens, fairways and tees, and much more.



Superintendent's Handbook of Financial Management, Revised Edition

Raymond S. Schmidgall ISBN: 0-471-46319-1, Hardcover, 176 pages, October 2003

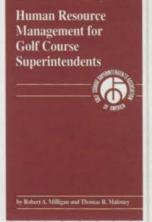
The key to any successful business is the effective management of revenue, costs and of course profitability. This book provides golf course superintendents with the necessary tools to manage their daily financial operations by explaining basic accounting principles such as pricing, budgeting, cost control, payroll and cash flow. With chapters on financial statements, golf course operation schedules, breakeven analysis and operating budgets this is an invaluable tool for all owners, operators and managers of golf courses.



Applied Turfgrass Science and Physiology

Jack Fry, Bingru Huang ISBN: 0-471-47270-0, Hardcover, 320 pages, July 2004

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Improving the plumbing

TYPE, PARTS, COST AND GOLFERS ARE ALL CONSIDERED WHEN DECIDING TO UPGRADE AN IRRIGATION SYSTEM

by STEVE and SUZ

anaging water efficiently and effectively is a considerable challenge on golf courses. The TRUSTY irrigation system is a key component to balancing golfers' expectations for ideal playing conditions and picture-perfect aesthetics. Superintendents also must consider weather, water needs of different turfgrasses, microclimates within a course, and water availability and quality issues.

When to upgrade a system, what products to use and completing an upgrade varies with each course. But superintendents agree conducting research necessary to make informed decisions and communicating with golfers are essential to the success of an upgrade.

When to upgrade an irrigation system starts with assessing flaws in the existing system to determine if it's obsolete or viable enough to be upgraded, according to Paul

B. Latshaw, MSM, CGCS, at Murfield Village Golf Club, Dublin, Ohio. The upgrade under way at the course is the fourth one he's worked on during his career.

"Generally, 25 to 30 years is the max for an irrigation system," he says. "The design and coverage of our existing system didn't meet what we needed to achieve. The piping was obsolete, too. You need to make sure your board of directors understands what



the deficiencies might be with your existing system and what a new system could accomplish. Then you can find a designer and get a cost estimate."

Ward Walters, superintendent of the 36hole Rancho Murieta (Calif.) Country Club, agrees. The North Course was built in 1971 and redesigned by Arnold Palmer in 1986. The redesign included a new irrigation system. The South Course irrigation system was upgraded following a flood in 1997.

"Problems with the aging North Course irrigation components and the desire for greater control of water placement led to our upgrade decision," Walters says.

Matt Morton, superintendent of the Riviera County Club in Pacific Palisades, Calif., says an upgrade will take time.

"Riviera has been considering an irrigation upgrade for some time now," he says. "We have noticed a significant increase of broken irrigation pipe and parts during the past three years. Our water distribution isn't balanced. We also have ineffective heads that hit trees, are too low and are wired together with others. The current system has been in the ground since 1979."

Latshaw stresses the importance of research. With technology advances, he says it's important to look at all the different products to see which best fit the requirements of a course. Before installing a new system at a previous course, Latshaw put in three different companies' parts and tested the design and the performance under onsite conditions before deciding.

"A lot is based on the local distribution," he says. "No matter what you put in, there will be problems at some point. You need to determine who is going to provide technical information when you need it and who is going to service the problems that may occur.

Before Bob Fluter joined Michelbook Country Club in McMinnville, Ore., as a superintendent in the summer of 1998, the club had made plans to renovate two holes. The course's two-row irrigation system had been installed when the back nine holes were constructed in 1983 and provided limited

"Provisions had been made and a basic plan drawn to revamp the irrigation system on those two holes," Fluter says. "I realized the entire irrigation system would be renovated at some point."

With a complete renovation in mind, Fluter worked with a contractor to tweak the design so it could be added onto or connected into a new system.



use in-house resources when possible to control capital expenditures

"We equipped it with big enough lines and with wires to accept computer control so it could be compatible with the rest of the system," he says.

During the first season after the new system was installed, there was a big difference between the two holes and the rest of the course. By the fall of 1999, the course's board of directors agreed to a system inventory and evaluation conducted by an irrigation engineer. A U.S. Golf Association agronomist visitation also was arranged.

Estimating the cost

Exploring multiple options and their costs is another important step when upgrading an irrigation system. Morton has been working with local distributors during the past eight years on field-testing of new controllers and heads. He's also working with a design team to help estimate the cost.

"A very important aspect that may be overlooked in our industry is the importance of presurveying your golf course," Morton says. "Our irrigation consultant spent one week field surveying the limits of turf, terrain contours and course obstructions to turf, such as trees, fence lines and structures. This helps to produce the most accurate blueprint for bidding and construction and ultimately eliminates many problems in the field during

"The more you research and study what the challenges are ahead of you, the better your results will be," he adds. "We've done a significant amount of planning for the upcoming irrigation system, which should help things proceed on a timely schedule in 2006."

Superintendents should be aware of poten-

tial resistance to major irrigation renovation costs and provide comparative figures for more limited options.

"My staff and I made estimates of what it would cost to Band-Aid the system," Fluter says. "We compared that with the cost of having a contractor design and install a new system. The irrigation engineer's report noted we were doing the best job possible with the existing irrigation resources and recommended a new system. That report, combined with the data we had gathered and the visual impact of those two reworked holes, led to the decision to go with a new system."

It's also important for superintendents to be prepared to use in-house resources when possible to control capital expenditures. Walters developed the Rancho Murieta design himself, using his educational background in irrigation, his own experience and knowledge of the system, and course needs. He tapped into all available resources: suppliers, Internet data, university extension personnel, the Golf Course Superintendents Association of America, the Irrigation Association and feedback from other superintendents.

"We're in the fourth year of a gradual upgrade, with our crew doing the work," he says. "We've estimated the cost in components and labor and have budgeted for each section, each year."

Doing the work in-house requires balancing the labor load with other projects and general maintenance. Walters opted to add most of the sprinklers during the winter and upgraded the controls during the season.

Superintendents should set priorities during planning stages of projects to insure

course renovations

renovations meet the most pressing needs of the course. Features should be added as funding allows according to those priorities.

We redid the pump station this past year and went from a 1,200-gallons-per-minute capacity to 2,400 gallons per minute," Latshaw says. "We'll be putting out water faster and adding a lot more heads, but overall, we'll be putting out less water, channeling it with more efficiency to the target areas.'

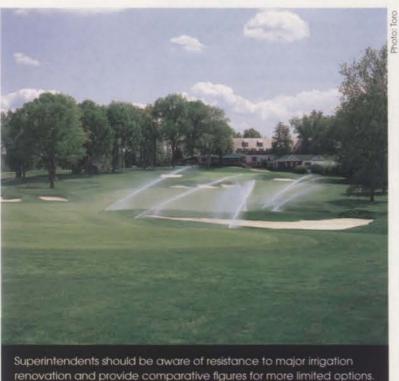
The new system is designed to meet the different requirements of the grasses.

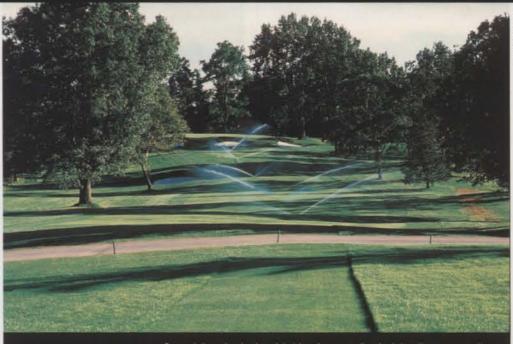
We needed to separate the fairway irrigation from the roughs," Latshaw says. "We want to keep the fairways as dry as possible for good turf cover without overly wet conditions for play. We're also separating the greens irrigation from the surrounds. We're updating all the components, taking advantage of the advanced technology to gain greater functionality."

Walter's top priority was greater control.

"We're switching to a double system with half heads to irrigate the greens and surrounds separately," he says. "We've upgraded the computer to include remote switching and will upgrade again to the newest version. We're installing new pedestals and control systems so we can break down more stations."

At Michelbook, Fluter agreed to a twophase project in which six holes were upgraded in the summer of 2000 and the second phase was completed in the fall of 2001. Included in the first phase were installation of a new pump station necessary to handle the increased capacity and purchase of the computer capable of operating the entire





Superintendents should strive to coordinate irrigation renovation with play to keep golfers happy and revenue flowing.

system and supporting remote control. Overall, the sprinkler head count increased from 700 to 1,200 with individual head control throughout the system.

During the Michelbook upgrade, it was necessary to keep the old section of the system running, including the main line and the control system. As sections of the project were completed, the old system was decommissioned in those sections.

"We weren't able to install wall-to-wall coverage, but we have very thorough coverage on the playing areas and the visual impact areas and can better track and control our water use," Fluter says. "Our main lines were adequately sized and extra wires were placed in certain locations so we can add onto the system later. I reviewed the designs as they were developed and took part in the layout of the system assisting with the little adjustments that always occur on site. All of those details are entered into the system."

Superintendents should strive to coordinate renovation with play to keep golfers happy and revenue flowing.

We opted for as little impact on the players as possible," Fluter says. "Prior to starting the project, we let our members know that only one hole would be impacted at any point in the construction. We also put in a provision in the contract prior to the bidding process requiring the contractor to have everything cleaned up by Friday afternoon so the course would be fully in play during the weekend."

Walters also focused on minimal golfer

We worked on one hole at a time and impacted play on that hole for only one or two days," he says. "Rather than resetting the hole for that short period, we requested the golfers take a net par on that hole."

This minimal impact won't always be possible, especially when other major course work is needed. Riviera elected to close certain holes for as long as three months because of the decision to combine a bunker renovation with the irrigation upgrade.

Generally, course renovation work causes complaints from members about cost and the disturbance to the course. Communication helps minimize the complaining.

"The more information we get out to our membership the better," Morton says. "It gives them time to plan, understand and ask questions. We plan a weekly notice of how the project is progressing, combined with daily reminders."

Walters also emphasizes communicating to the members about renovation schedules.

"We'll post the information on our Web site, in the clubhouse and at the tees. And the pro shop will inform each group as they go out."

Fluter says too much information is better than too little.

"News of our irrigation upgrade was included in the monthly newsletter," he says. "A daily notice was posted in the clubhouse, in the pro shop and on the main bulletin board. We always posted at the first or tenth tee for whichever nine was being impacted. We noted the hole under construction and exactly what they would be facing. I also set up a dry erase board in the clubhouse that showed which holes would be involved and what work would be done. Members responded well to that and felt in the loop and more a part of the process." GCN

Steve and Suz Trusty are freelance writers based in Council Bluffs, Iowa. They can be reached at suz@trusty.bz.

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Career development

The road ahead

GOLF COURSE SUPERINTENDENTS HAVE SEVERAL CAREER PATHS WITHIN GOLF

JOHN

fter being a superintendent for 20 years, what are career options? Some are happy as superintendents at WALSH well-respected private clubs. Some go on to work for management companies, overseeing several superintendents. Others might get bored and wonder where to go from there. Well, there are several career paths golf superintendents can take.

> The career development committee of the Golf Course Superintendents Association of America has been talking about alternative careers, according to Hannes Combest, managing director of member programs at the GCSAA. She says the g.m. position is the most likely position into which superintendents would move.

> "After the age of 50 or so, superintendent want other options," she says. "In the 2005 compensation and benefits survey, 8 percent say they hold general manager responsibilities that regular superintendents don't. And 14 percent would like to pursue the g.m. route. We know superintendents are interested in becoming general managers. We're seeing more numbers in this area."

> But Combest says continuing education at the GCSAA is based on the superintendent

> "It's not our intention to develop continuing education for superintendents to become general managers," she says. "However, the GCSAA has an agreement with the Club Managers Association of America so superintendents can attend CMAA seminars at the Golf Industry Show at its member rate."

A shoe in

Scott Schukraft, the g.m. at Huntsville Golf Club in Shavertown, Pa., is one example of a superintendent who became a g.m. He joined Huntsville in 1991 after eight years as the superintendent at Rolling Hills Country Club in Wilton, Conn. He was the superintendent at Huntsville from 1992 to 1999 and then took over as g.m. and director of grounds after the club manager resigned.

"It wasn't until that point where I thought I could be a g.m.," he says. "I called [consultant] Jim McLoughlin to see if I had what it takes to be a g.m., and with his encouragement, I approached the president of the club. The president had more confidence in me about the position than I did. He was excited about my interest in the g.m. position and was willing to provide me with what I needed to be successful."

Schukraft explains the reason for wanting

"I'm a perfectionist," he says. "I had 600 acres and was working 10 to 12 hours a day year round. I was always trying to get better. It got frustrating working weekends because I wanted to spend more time with my family. I needed more of a balance. I also was becoming reluctant to do certain things. Additionally, I had an assistant who was with me from day one. He was aggressive and was ready and willing to step up. I knew he could take over the superintendent's position. I made the move for my family, myself and to provide an opportunity for a deserving individual, my assistant."

To be a g.m., one needs to manage a staff and be able to hire certain people to cover

"I needed to hire a food-and-beverage manager, golf pro and a strong controller," Schukraft says.

According to Schukraft, to be a g.m., superintendents need to:

1. Be proactive and rise up out of the foxhole, market themselves and their abilities, as well as gain respect from owners.

2. Acquire skills they might not need in their current jobs, such as membership, marketing and financial skills, as well as knowledge about the pro shop and restaurant.

3. Develop relationships they might not want, such as with the golf pro, chef and food-and-beverage manager. "It might not be important now, but it could be three to five years from now," he says.

4. Stay involved in professional associa-

5. Step away from the profession and

At Huntsville, the chef, controller, superintendent and golf pro report to Schukraft, who says they're effective managers of their departments, which makes his job easier. However, it hasn't always been easy. Schukraft has had to replace a golf pro and chef.

"The last three years have been more difficult than the first four," he says. "As I grew in the position, I saw problems and a need for a change."

As the g.m., Schukraft spends less time working seven days a week than when he was a superintendent and can take one or two days off more easily.

Communication methods have made it easier and make me more accessible," he says. "There is more balance between work and family with this job than when I was a superintendent. It has worked out the way I thought it would, but it hasn't always been

And Schukraft doesn't plan to move on anytime soon.

"I have a young family, and they need to remain settled and stable, so I plan to be here for the next five to 10 years; but I'm not so sure I want to be a g.m. forever," he says. "Ownership or consulting might be possibilities. I haven't given it a lot of thought, but I know I don't want to manage another club."

An association exec

Becoming an association executive is another route superintendents can take. In 1997, Jeff Wendel left Clarinda (Iowa) Country Club and moved to Ames, Iowa, to be a superintendent at the municipal Homewood Golf Course while earning his horticulture degree from Iowa State University, which he received in 1999.

In 2000, Wendel then became the communications director for the Iowa Golf



Course Superintendents Association because the job was open and he had a desire to tell people what superintendents do.

"I got to know hundreds of superintendents and felt like I knew what they needed," he says. "It seemed like the right thing to do. My motivation was to help those who do great jobs but are in tough situations."

In 2002, Wendel became the executive director of the Iowa Turfgrass Institute. His position includes c.e.o. of the Iowa GCSA and chapter executive for the Iowa Sports Turf Managers Association and Iowa Professional Lawn Care Association. The Iowa Chapter of the National Golf Course Owners Association also is managed from his office. Wendel

says all of the associations feed off each other because of their similarities with turf.

Even though Wendel likes his job, he misses being a golf course superintendent from time to time, though there are things he doesn't miss.

There are three main goals Wendel works on:

1. Let people know what superintendents do, and let golfers know why courses are the way they are. Soils, budgets, practices, land ... everything is different.

 Work with legislative issues, keep an eye on negative legislation, work on improving the public perception of superintendents and golf courses, and promote the environmental benefits of turfgrass.

Grow the associations and increase participation.

Wendel also plans the institute's conference and show, summer field days and any fund raising, as well as deals with vendors.

Wendel says he doesn't know if he would recommend his job to other superintendents but says superintendents need to spend time working on communication skills, both written and oral.

"As a superintendent, you need to be part of building the game," he says. "You need to communicate to your staff, the owner, the pro and committees. I encourage superintendents to challenge themselves. I admire

career development

them because they work hard, and most guys have huge pride."

The rise of a salesman

In addition to general manager and association executive, another occupation in which golf superintendents can be successful is in

"Superintendents automatically have great rapport with other superintendents," Combest says. "They know the business, they just need to know the sales."

One of those who has done it well is Dave Fearis, a sales representative for PBI Gordon. In 1982, Fearis left his job as the superintendent at the Country Club of Peoria (Ill.) after 12 years to work for Scotts Professional Turf Division. For four years, he had a territory in the Midwest with 250 to 300 accounts.

"I was in a rut and wanted a change," he says. "Nothing was wrong with the course. I had a good friend who was a Scotts sales representative who got promoted, and I filled his position and did it for four years. That job made me a better superintendent. All of my people skills and communication improved with that job."

After four years with Scotts, Fearis went back to being a superintendent at Blue Hills Country Club in Kansas City, Mo., and was there for 16 years.

"I had a young son and was tired of being on the road," he says. "I had an opportunity at Blue Hills. Blue Hills took a big chance. I interviewed and came in second. The club

opted to go with a local superintendent, but he didn't want to move, and the country club he was working at made him a better offer.

"But I became tired of the same routine and wasn't having fun. It wasn't fair to the club or me, so I retired and started consulting.'

Fearis spent a year consulting, including with PBI Gordon, and did that on and off. At PBI, he originally was a product manager and recently moved into sales. He covers Iowa and works with management companies and buying groups.

Fearis says the transition from superintendent to sales rep isn't that difficult, especially if the company provides a lot of training.

You have to be a communicator, can't be shy and need to be a people person," he says. "There's a misperception that salespeople don't work as hard as superintendents. They do, but the timing is different. Superintendents do put in a few more hours, but with sales, there's a lot of prep work. It's a good choice. Do I miss being a superintendent? In some ways, yes, in some ways, no. I don't miss the 100-degree temperatures."

Top dog

Superintendents also can be directors of golf. Paul McGinnis, director of golf operations at Pebble Creek Golf Resort in Peoria, Ariz., is an example. McGinnis had built his career working as a superintendent for several Phoenix-area private clubs: the Wigwam Golf Resort, Palm Brook Country Club, Union Hills Country Club, Moon Valley Country

Club and Alta Mesa Golf Club before arriving at Pebble Creek.

"I've built a reputation in the Phoenix area," he says. "Each move was a step up in prestige. Running 18 holes was nice, but it wasn't a challenge anymore. An opportunity came up to run a multicourse operation (two 18-hole courses), and I took it.

When McGinnis joined Pebble Creek, he was hired as the golf course manager. Then the board wanted to reorganize the golf operation and put him in charge of all golf operations including maintenance, the pro shop and driving range.

"When I was the golf course manager, my responsibilities didn't include the pro shop," he says. "I thought I could always fill the director of golf role and was ready. I wasn't interested in being the g.m. with the food-and-beverage responsibilities. It's a big job. It's hard to see both golf courses every day like you would if you were the superintendent."

To be a director of golf, McGinnis says a superintendent needs experience and respect through his reputation.

"I've been lucky enough to work in Phoenix my whole career," he says. "People knew me. You need the respect of the pros. The hard part was getting the pros to be on my side. We're peers, but I'm higher on the management ladder.

"The worst part is that I'm not as hands on with the golf course," he adds. "I still want to ride the course in the afternoon, but purchasing, budgeting and personnel issues take up my time. I go to more committee meetings, luncheons for the ladies and men's club, and member/guest dinners. I do miss 'getting into it,' but when you climb the ladder, that's what happens. When I got into this position, I looked at it differently than as a superintendent. I asked questions such as 'Why can't we have more shotgun starts to generate more revenue?"

Options abound

Ownership is another avenue for superintendents, Combest says. Bland Cooper of the Charlotte, N.C.-based Sulstone Group and Cleve Cleveland of the Newark Valley (N.Y.) Golf Club are examples of that.

"There are loads of opportunities if they choose to stay in a golf-related field," Combest says. "There also are opportunities for younger superintendents. You don't have to have 20 years of experience. The thing about the turf and golf industry is that people in the industry have a lot of options, and students are hearing about them." GCN



Scott Schukraft, g.m. at the Huntsville Golf Club in Shavertown, Pa., made the transition from golf course superintendent successfully



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QUIETER ELECTRIC EQUIPMENT NEEDS TO OVERCOME LONGEVITY ISSUES TO BECOME MORE WIDELY USED

MARK LESLIE

ilence is golden. And it might become a golden rule at more golf courses throughout the country as oil and gas prices soar and more municipalities and counties impose noise bans during earlymorning hours.

Additionally, air-pollution regulations are driving researchers to come up with noncarbon power sources for equipment.

Electric golf carts and people carriers have been manufactured for some time. E-Z-GO manager of marketing and communications Ron Skenes says the company's first golf cart, which was manufactured in the mid-1950s, was electric. But it wasn't until the late 1990s before the first electric mowers were unveiled. Six years ago, Smithco released its E-star electric riding bunker rake and electric greens roller (model 09054).

Now it appears electric power, hybrids combining batteries with gas or diesel fuel and hydrogen fuel cells are the new frontier of maintenance equipment.

Currently on the market are:

- · Jacobsen's E-Walk walk-behind mower, E-Plex riding greens mower, and the Hauler 800E and Hauler 1000E utility vehicles;
- Toro's E2050 Workman utility vehicle;
- · John Deere's 2500E riding greens mower, a hybrid gas or diesel-electric vehicle, and E-Gator utility vehicle;
- · E-Z-GO/Cushman's MPT (multipurpose truck) 1000 and MPT 800;
 - Smithco's E-star bunker rake; and
 - Salsco's greens roller.

"In the future, everything will be electric," predicts agronomy consultant Terry Buchen of Buchen Golf Agronomy International in Williamsburg, Va. "I keep telling people to install more electric outlets to charge all this stuff. Almost all types of electrically operated maintenance equipment are being added - except fairway and rough mowers, and manufacturers are testing them, too."

Sal Rizzo, founder and president of Salsco, also thinks electric is the future.

"I'm sure we need to get away from gas, oil and vibration because vibration, a byproduct of gasoline-powered equipment, causes compaction," he says.

Joe Zvanut, sales promotion specialist for Jacobsen, says the company is conducting a lot of research on hybrid and electric

"We're looking into all types of tech-

greens to fairways and tees.

The market is all going to go electric, depending on how far the technology advances go," he says.

Those advances include fuel-cell technology. The Toro Co.'s Center for Advanced Turfgrass Technologies unveiled a hydrogenfuel-cell-powered mower at the Golf Industry Show in Orlando, Fla., in February.

"We haven't gone to market with it because we haven't gotten to where the costvalue relationship needs to be," says center director Dana Lonn. "We haven't committed to any dates. It's not the next golf show, but it's not 10 years away, either. It's a very active research-and-development project."

Besides Lonn, only Steven Johnson of Smithco's research-and-development team would reveal what their companies are working on with regard to electric equipment.

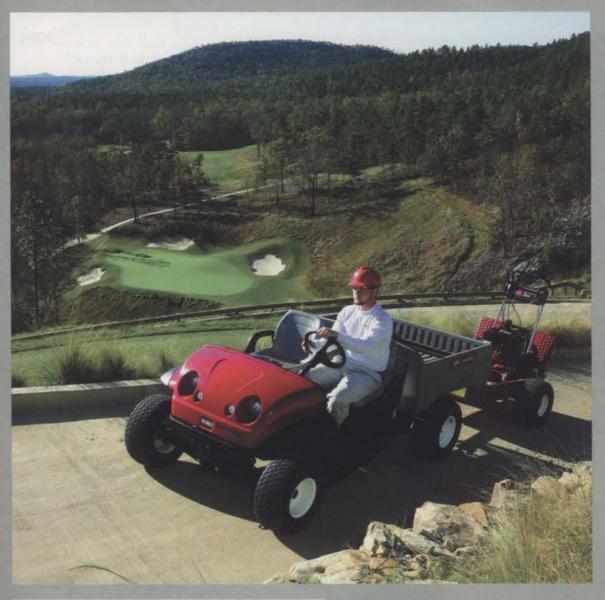
"In the future, everything will be electric." - TERRY BUCHEN

nologies to help superintendents be more productive and improve performance," he says. "We're also looking into alternative power and fuel sources so they can better control their costs."

Mike Koppen, group marketing manager for John Deere's golf and turf products, says it's a logical step to take the technology from For Smithco, it's an electric greens roller that Johnson expects to come off the production line early in 2006.

Driving forces

In addition to the factors of noise and fuel costs, the transition to electric is being driven by savings on fuel, oil, belts, hoses,











maintenance equipment



superintendents become more comfortable with electric equipment

etc.; concerns about hydraulic leaks; manhours saved; and the ability to begin work earlier in the morning in golf communities where houses line fairways and members demand quiet in their backyards.

"Ask any superintendent how much time is wasted turning off motors while golfers play through," Buchen says. "If they had electric, they could keep working.

"I told my old club that if I can get five hours of hands-on work a day out of my crew in an eight-hour day, we were doing good," says Scott Johnson, CGCS at Cedar Creek at Shadow Glen in Olathe, Kan.

Johnson, who is in his second season using Salsco's tournament roller, says he has greatly reduced the number of noise complaints from Cedar Creek homeowners.

Dave Herman, superintendent at Heritage Highlands Golf and Country Club in Tucson, Ariz., claims to be the first superintendent in the state to buy an electric utility vehicle - John Deere's E-Gator.

We start maintenance operations at 5 a.m. year-round," he says. "The E-Gators are nice and quiet."

But Herman is like many superintendents who are in the Twilight Zone of pragmatism when it comes to electric equipment. He has since switched back to a gas-powered utility vehicle because he says that after 15 to 18 months the batteries wouldn't hold a good enough charge.

"They lived only half the three years I expected," he says. "Deere replaced them at their expense. The benefits were great because they were quiet, but if we had to aerify or overseed and were working 12hour days, we would only get six hours out of the E-Gators.'

Dean Miller, director of agronomy at the Club at PGA West in La Quinta, Calif., says there are many benefits to electric-powered equipment, but there are drawbacks, too.

Once you get into bigger equipment and need more power, it's harder to go electric,' he says. "They are required to do so much

Miller feels there's more of an opportunity for hybrid equipment, especially on golf courses, because they would be able to be

David Court, CGCS at Boca Lago Country Club in Boca Raton, Fla., and his crew operate under a 7 a.m. noise ordinance. They use electric golf cars and utility vehicles, including a Carryall for spot spraying and cup changing. To beat the noise ordinance, he cheats a bit by going out 15 minutes early and uses more equipment operators to stay ahead of players who tee off from the first and 10th holes.

Court says electric equipment needs to last a little longer in the field - a good seven-hour day - to be more useable for him.

Down the road, Steve Wright, CGCS at Boca West Country Club, says he's impressed with the way electric equipment has improved. But with 72 holes to care for, Wright says he has a large fleet of vehicles and it doesn't make sense to buy two or three mowers to accommodate the noise ordinance.

Yet many superintendents find electric units fit their needs. Manufacturers are reporting increased interest from superintendents coast to coast.

"At first, it went off pretty big," says Johnson of Smithco's E-star 48-volt bunker rake. We sold a lot of them. Then, for a time, they weren't really moving. But sales picked back up again a year and a half ago."

Johnson attributes slow sales to an intimidation factor but says that's changing.

"A lot of people weren't comfortable working with electric equipment, but they are more comfortable now and have a better understanding," he says. "A lot of the new guys coming out of schools have an electrical background, and mechanics are a lot more diversified now and know more about electric circuitries and components.'

Herman laments the industry is still using the same batteries it has used in golf cars for years and says with longer-lasting battery equipment, electric equipment would be used extensively.

"If you could get to the point of having a jell battery so you didn't have to worry about water at all, which is a big problem here in Arizona, that would make a world of difference," he says. "But jell batteries are not deep-cycle."

Lonn says more progress hasn't been made because electric power is an emerging technology.

"There is a chicken-or-egg problem," he

"Once you get into bigger equipment and need more power, it's harder to go electric." - DEAN MILLER

Zvanut disputes the longevity question with the argument that changing the batteries on Jacobsen's E-Walk and E-Plex is equivalent to refueling a gas-operated mower.

"The battery pack is easily removable, and sensors will shut off the reels when the battery power reaches a minimum level, leaving enough power to get the mower to the utility cart to replace the battery," he says.

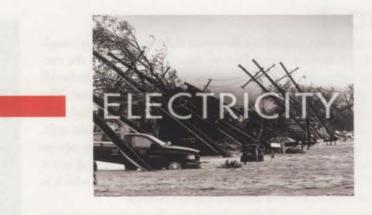
Rizzo says Salsco, which sells 36 models of rollers to six different industries, gets more than 18 holes per charge with its tournament roller. He says it's 30 percent faster than a gas machine.

"We took an electric motor that was being used on a 5-ton forklift and used two on this roller," he says. "We shot the squirrel with an elephant gun. We have two electric motors, one over each roller."

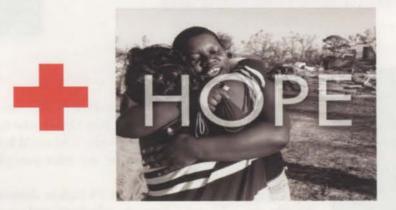
says. "There are all kinds of people who make components to make a hydraulic machine for construction equipment. There are a lot of choices - a Home Depot full of many components. But when it comes to electric-powered products, the component choices are much smaller. Part of it is there are few applications. Because batteries have been so limited, there hasn't been much work on controls to control them. We've had to set up our own components. We're targeting applications where we think the biggest benefits exist and are looking at those as lead applications. From them, we will put them in other places." GCN

Mark Leslie is a freelance writer from Monmouth, Maine. He can be reached at gripfast@ctel.net.









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equipment ideas



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

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



Slice into it

This piece of equipment started as a Roseman three-gang fairway/rough mower that was converted into a fairway slicer in 1969. After the cutting units were removed, a 1-inch-diameter steel rod was installed with 10-inch-diameter, case hardened steel slicing blades spaced 5 inches apart. The slicer has spring-loaded bushings and a collar and roll pin on each end with sealed bearings. The 12-volt electric lift was part of the original Roseman unit. There's a 1/4-inch-diameter metal rod attached to the lift/lower lever the equipment operator can reach from the seat of the tow vehicle to raise and lower the unit while seated. There's a 12-volt electric cable to power the lift, which is attached with alligator clips to the tow vehicle's 12-volt battery.

The fairway slicer usually is used after a heavy rain for better penetration into the soil and so the slits don't dry out too quickly.

There's a weight tray that has a 50-pound weight limit on the back slicing unit where steel slabs, each weighing about 10 pounds, penetrate the soil and adjust for proper depth. The front two slicing units don't need a weight tray because once the units are lowered, the weight of the metal frame helps the slicing blades penetrate the soil.

The blades cut the soil about 2-inches long and 11/2-inches deep on 5-inch centers. The transport wheels have about 24 psi of tire pressure. The penetration depth of the front units can be adjusted with the electric lift.

The tow vehicle has an operating speed of about 5 mph. All of the fairways can be sliced in one direction in one day. This is the second set of blades that have been used on this piece of equipment in 36 years.

D. Frank Dobie, superintendent/general manager at The Sharon Golf Club in Sharon Center, Ohio, conceived this idea of recycling and modifying old equipment that has lasted decades and is still running strong.









Rake away

eff Sutherland, the superintendent of the Pacific Dunes Course at Bandon (Ore.) Dunes Golf Resort, approached Ken Sjogren, the equipment mechanic, with a broken bunker rake and asked him if he could build a stronger, affordable, more durable bunker rake for golfers' use. After a couple of adjustments, Sjogren came up with a bunker rake design.

The hardwood handle is about 11/8 inch in diameter and is 58 inches long. It's split about 21 inches from the rake head, and a copper sleeve is attached at the base of the split to help strengthen the handle and keep it from splitting. The ends of the handle are cut by a tenon cutter and then glued or screwed to the rake head with stainless steel screws. The screw holes are predrilled, and the screws are countersunk.

The rake head is made out of Port Orford white cedar and measures 11/8 inch by 1/18 inch and is 16-, 18-, 20- or 22-inches wide. The head's teeth are 3/8 inch in diameter and measure 3/4- to 2-inches long on 11/4-inch centers. The teeth are glued in place. The lightweight cedar wood is strong and weathers well in the Pacific Northwest. The holes in the rake head for the teeth aren't drilled all the way through they're about 7/8-inch long. The teeth dowels are replaceable by using a brad drill, which has a point that can be centered on the old dowel for easy extraction.

The rake was conceived, designed and built Sjogren and Sutherland. Troy Russell is director of golf course maintenance at the resort. GCN

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

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



Taking from the best

eople often ask me where I get my ideas for columns. (Well, actually, almost no one ever asks me that, but I needed a way to jump-start this piece, so I invented that question.) I tell them I simply keep my ear to the ground and my eyes on the prize, and the big idea just magically pops into my head right before deadline.

Yeah, right. Like columnists have a Muse. What would she be called? Hmmm ... Opininato?

Truthfully, I use an age-old writing technique previously employed by folks like William Shakespeare, John Milton, Voltaire and (sorry to my friends who believe in the "literal word") the Biblical apostles. None of these famed writers ever had an original thought in their lives. They simply took things written earlier by others and put a little spin, a twist or some spiffy language on them. I swear Bill Shakespeare woke up every morning and thought, "Which Greek myth shall I rewriteth today?'

The technical term for this is a fancy French word: homage. In English, we call this stealing. The \$10 word is plagiarism, but any way you look at it, it's creatively borrowing the ideas, words or thoughts of others to accomplish a writing goal.

And, it's a wonderful thing.

I steal from people every time I put words on paper. It's pretty hard not to let the tone or style of your favorite writers seep into your work. So now, you're probably wondering right now (or not), who is this dunderhead borrowing from today? Well, the answer is everyone. Allow me to give you a quotable tour of a few of my favorite theft targets ... er, I

First on the list is America's greatest author, humorist and wearer of white suits, Mr. Mark Twain. From Twain, I stole the basic concept that humor can be used to make a relatively serious point. In our happy little business, he's best-known for his observation: "Golf is a good walk spoiled." But, as a resident of Cleveland, my favorite Twainism has to be: "Cold! If the thermometer had been an inch longer we'd all have frozen to death.'

I always turn to Twain when I'm stumped for a description or an opening quote. Once (well, several times), when writing about a scientific study or some

kind of baffling math-ridden research, I stole this gem from the Man from Hannibal: "Facts are stubborn things, but statistics are more pliable."

Another on my personal list of literary heroes is Dave Barry. You gotta love the fact that this guy won the Pulitzer Prize for fart jokes and stories about goofy stuff his dogs do. Barry taught me that everyday things hold infinite hilarity. He is most definitely not a golfer. The following quote about our sport is evidence of that: "Although golf was originally restricted to wealthy, overweight Protestants, today it's open to anybody who owns hideous

I once joyfully lifted one of Barry's quotes in a story about the merits of undertaking a building project on the golf course by yourself as opposed to buying a prefab unit: "The only really good place to buy lumber is at a store, where the lumber has already been cut and attached together

in the form of furniture, finished and put inside boxes."

The third guy on my list occupies the same spot in Sports Illustrated (the back page) that I occupy

here in Golf Course News. Rick Reilly is probably the funniest sportswriter ever. Reilly writes regularly about golf and is a living, breathing quote machine. Reilly shows how you can grab onto a small thing and shake all of the brilliance out of it until it screams "Uncle!" One of his best statements about our silly pastime is an analogy to a common playground nightmare: "Golf is the cruelest game because it eventually will drag you out in front of the whole school, take your lunch money and slap you around.'

Describing the racial state of our business, Reilly is absolutely at his best: "Fifty years ago, 100 white men chasing a black man across a field was called the Ku Klux Klan. Today, it's called the PGA Tour."

Last, but not least on my tribute to writers I steal from regularly is David Feherty. Ireland's quirkiest son might have been mediocre in his professional golf career, but he's hell on wheels when it comes to prose. Feherty, who writes for Golf magazine and chases players around courses for CBS, simply has a way of communicating to others about the game that appeals to everyone, even hard-to-please superintendents. For example: "Bumpy greens don't bother me anymore. Since I've become an analyst, I don't see the problem."

But, the man is more than just an observer of golf. He can put words together in a way that's almost musical (particularly when you throw in the brogue): "No one has ever imposed his will on a golf ball like Arnold Palmer. His swing was always athletic and agricultural, an extraordinary, barely controlled spasm." To quote the Guinness ad: "Brilliant!"

I interviewed Feherty after he appeared at a Syngenta event at the GCSAA show a couple of years ago. I got his contact info and put him on the freebie list for the magazine. A few months later, I bumped into him at the NEC Invitational tournament and re-introduced myself. He said (once again, insert Irish brogue here):

> "Oh, yer the fella that's been sending me that magazine and fillin' my head with all sorts of turfy facts. It's too damn complicated, ya know." Yeah,

Dave, we know.

THE TECHINICAL TERM

FOR THIS IS A FANCY

FRENCH WORD: HOMAGE.

IN ENGLISH, WE CALL IT

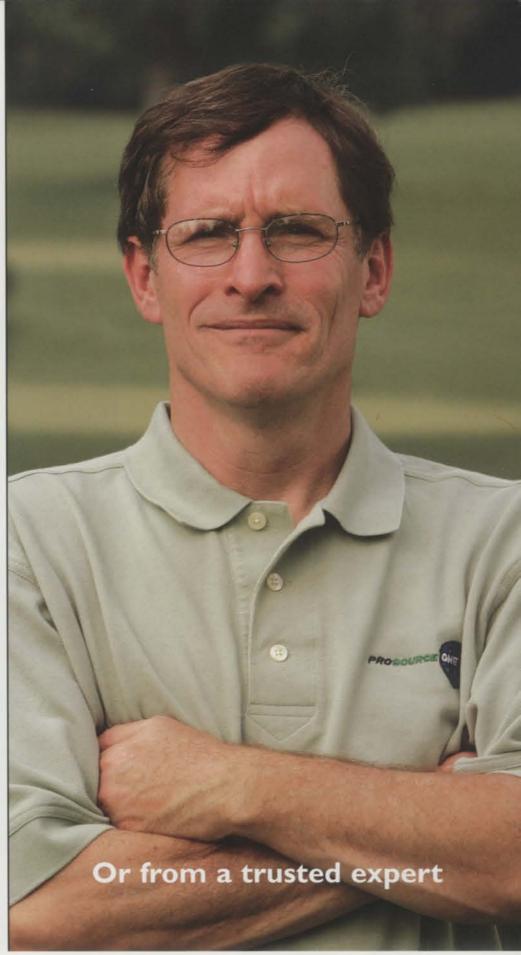
STEALING.

So, I've paid my tribute to a few of the writers whose words, ideas and style are corruptly incorporated into my work every day. But, what's that mean to you? It means you can do exactly the same thing.

Most superintendents and others that I meet along the way at conferences and meetings have to write short items for the facility newsletters or chapter publications. And they all have one thing in common: They universally hate and dread picking up a pen. If you're among them, take this advice from a professional word thief: steal ... just appropriate articles, ideas and topics from others. Trade subscriptions to your club newsletter with your buddies in the area and simply rewrite what they've already done. Grab items you see in Golf Course News or other publications and give them your own little touch. Never hesitate to borrow from a colleague.

God knows Shakespeare never did.





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