

MARCH 2007
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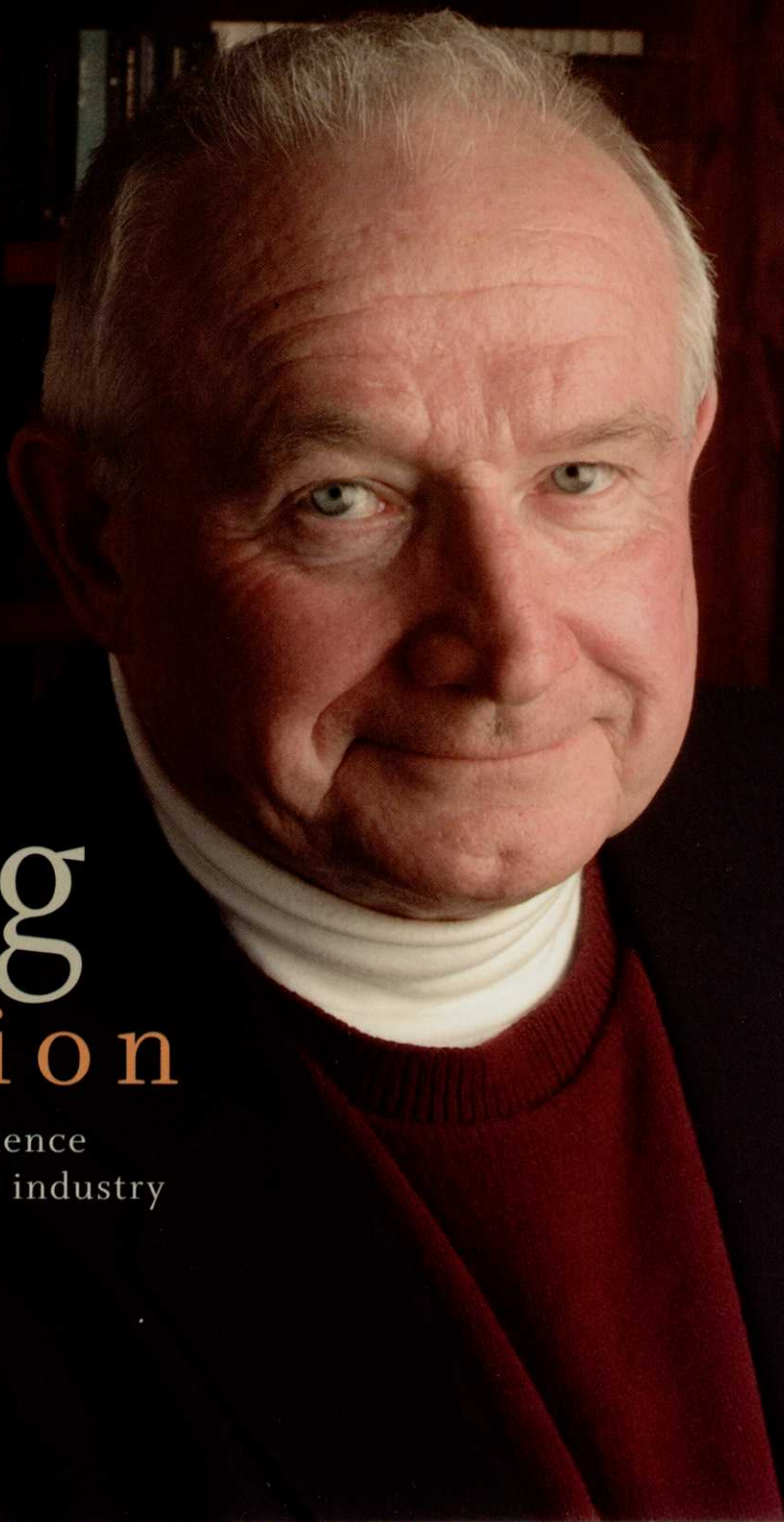
Builder Excellence Award profiles

Fertility programs

An interview with Donald Trump

Elevating the profession

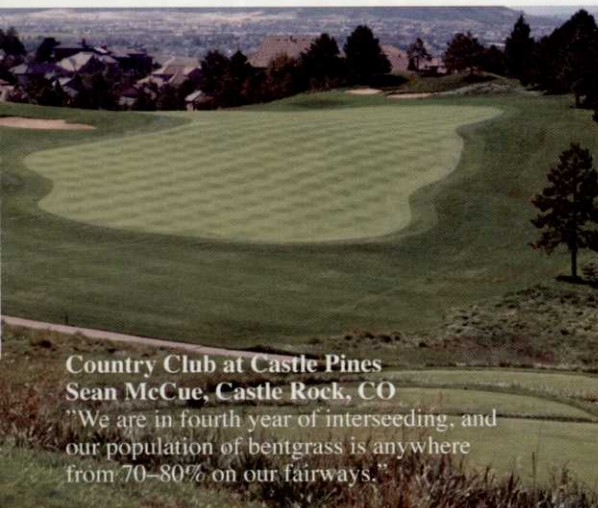
Paul R. Latshaw's influence
ripples throughout the industry



TEE 2 GREEN

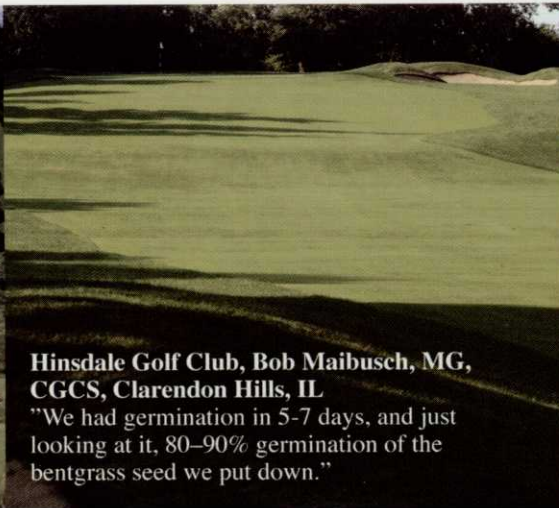
“Interseeding works for us”

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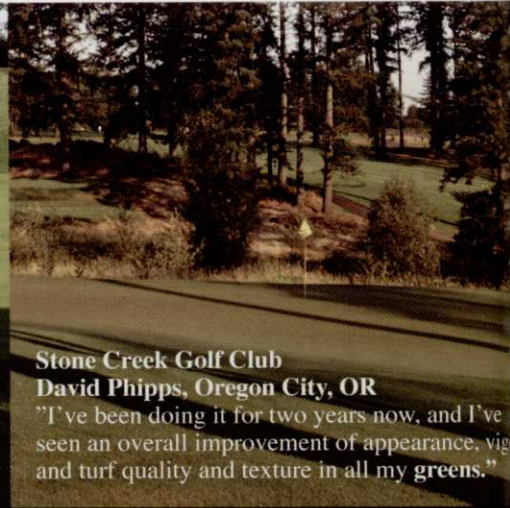
Country Club at Castle Pines
Sean McCue, Castle Rock, CO

“We are in fourth year of interseeding, and our population of bentgrass is anywhere from 70–80% on our fairways.”



Hinsdale Golf Club, Bob Maibusch, MG,
CGCS, Clarendon Hills, IL

“We had germination in 5-7 days, and just looking at it, 80–90% germination of the bentgrass seed we put down.”



Stone Creek Golf Club
David Phipps, Oregon City, OR

“I’ve been doing it for two years now, and I’ve seen an overall improvement of appearance, vigor and turf quality and texture in all my greens.”

“I WILL CONTINUE TO **INTERSEED** TO KEEP GETTING ADDITIONAL POPULATIONS OF **BENTGRASS** OUT THERE AND TO HELP ME **COMPETE AGAINST THE POA ANNUA** POPULATIONS IN OUR FAIRWAYS”

Sean McCue, Country Club at Castle Pines, Castle Rock, CO

These superintendents, from both private clubs and public golf courses across the country, say that interseeding with the advanced bentgrasses from Tee-2-Green is a highly effective method for improving turf.

The interseeding process is simple: After you aerify, put down one of the aggressive Penn bents from Tee-2-Green, such as the Penn A’s & G’s, Seaside II, PennLinks II, or Penneagle II. Over time, as you slowly build up your seed bank, the aggressive Penn bentgrasses will grow and spread to become

the dominant turf on your greens, fairways, and tees—even out competing many unwanted weeds, including *Poa annua*.

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“I’VE SEEN AN **OVERALL IMPROVEMENT OF APPEARANCE**”

David Phipps, Stone Creek Golf Club, Oregon City, OR

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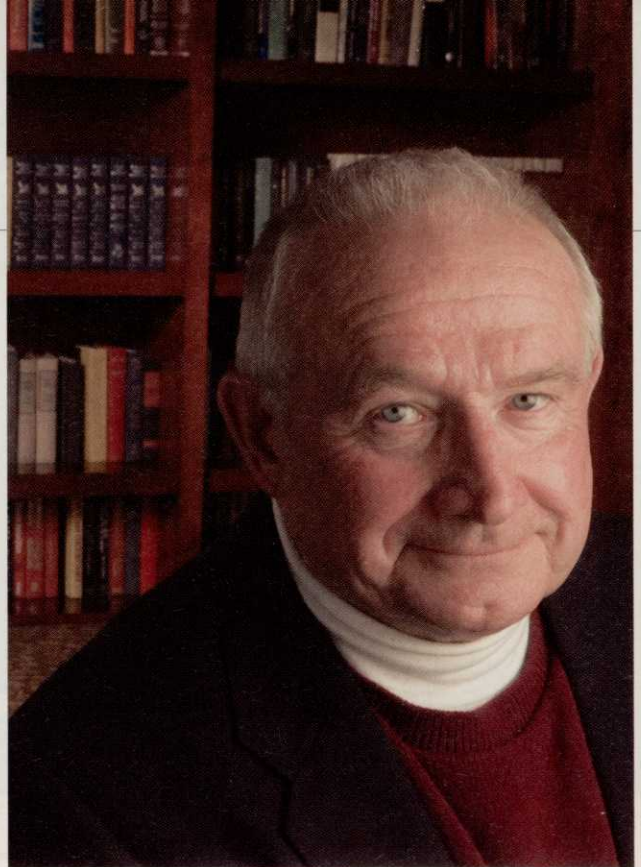
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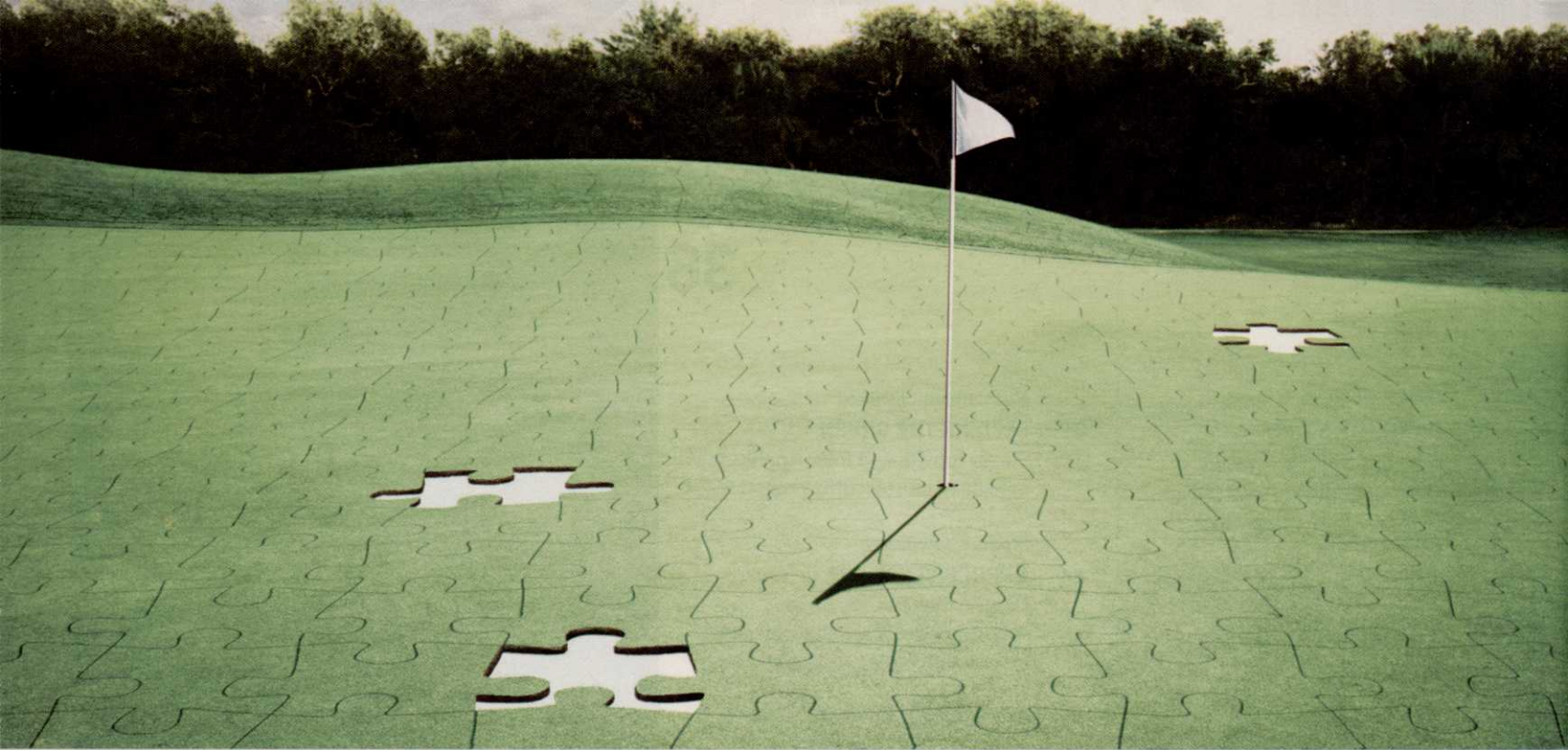


GOLF COURSE INDUSTRY 2007 Builder Excellence AWARDS



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GET WHAT YOU WANT

For most, negotiating contracts is difficult. But effectively negotiating a deal will get you what you want – maybe more, maybe less. Bob Quintella, deputy director of the parks, recreation and neighborhoods department for the city of Modesto, Calif., offers tips about how to become a better negotiator.

COPING WITH LOCALIZED DRY SPOT

There are several ways – some better than others – to decrease water repellency in soil.

ONLINE POLL: EDUCATION

As a golf course superintendent, what level of education do you have? High school diploma? Two year college or technical degree? Four-year college degree? Master's degree? Doctorate degree? Visit our home page to partake.

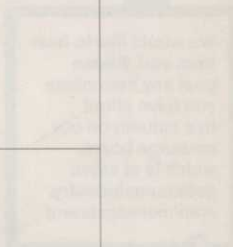
DIGITAL LIBRARY

For the first time, you can view last year's digital issues of Golf Course News any time you want on DVD. The digital library contains all the

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EDITORIAL MISSION STATEMENT:

Golf Course Industry 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 Industry shows superintendents what's possible, helps them understand why it's important and tells them how to take the next step.





John Walsh
Editor

THE GREENER SIDE OF GOLF

Don't get me wrong; I'm not a tree-huggin' hippie who thinks pesticides are horrible and should be banned. And I'm not protesting golf course development because it disturbs the land and "ruins" wildlife habitat. But golf course superintendents, as a whole, can do a better job of being the environmental stewards the industry claims.

The mindset of many superintendents is to use as few pesticides as possible by having a sound integrated plant management program and managing water use better because it's good for turf, the bottom line and the environment. But there's still room for improvement.

Those at the 10th Golf & the Environment meeting last month in Anaheim seemed to think so, too. The event included key people from the golf industry (GCSAA, USGA, GCBA and ASGCA) and the environmental community (Sierra Club and Friends of the Earth). Both sides found common ground and understand each other better. The goal for both is to improve golf's compatibility with the environment, and there's no question the two sides are closer to that goal than they were 10 years ago.

Superintendents need to realize the importance of better environmental stewardship. I suspect some superintendents simply don't care, and some are too lazy. There also are many who care but are overworked, underpaid, don't have the time and are working for owners who could care less about being better environmental stewards. Yet, superintendents are the ones who can make the biggest difference at a golf facility. Superintendents should take the initiative and implement improved environmental standards before they're forced to do it through regulation.

Facilities can improve in areas such as plant protection and nutrition (more effective use), water management (less usage), waste management (generating less waste and recycling) and wildlife management (increasing habitat). Irrigation companies are doing their part by making products that manage water more efficiently. Pesticide manufacturers are coming out with safer and more effective products. Seed companies are providing new turfgrass varieties that are better for the environment. Architects and builders are part of the movement, too, thanks to better siting and erosion control processes. Research is part of it as well. The USGA and GCSAA are funding substantial environmental research. The GCSAA also is acquiring information to use as baseline data to document the environmental progress of golf courses.

If you're unfamiliar with the Environmental Principles for Golf Courses in the United States – guidelines developed a decade ago – e-mail Paul Parker (pparker@msn.com) at the Center for Resource Management. Or, if you want to improve your environmental stewardship by implementing a comprehensive golf course environmental management plan, contact consultant Bill Bushman, director of Ecodesigns in San Antonio. He presented a thought-provoking seminar in Anaheim.

This isn't to say the industry isn't doing anything to better environmental stewardship. It's doing quite a bit, but it doesn't do a good job of communicating its successes. Because of that, it's easy for environmental activists to point the finger at it.

The industry has made great strides during the past 10 years regarding its compatibility with the environment, but there's still room for improvement. And there's no good reason why every superintendent and facility shouldn't be an active participant.

Maybe architect Bill Love put it best when he said, "If you don't understand the environment, you'll be out of the business."

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



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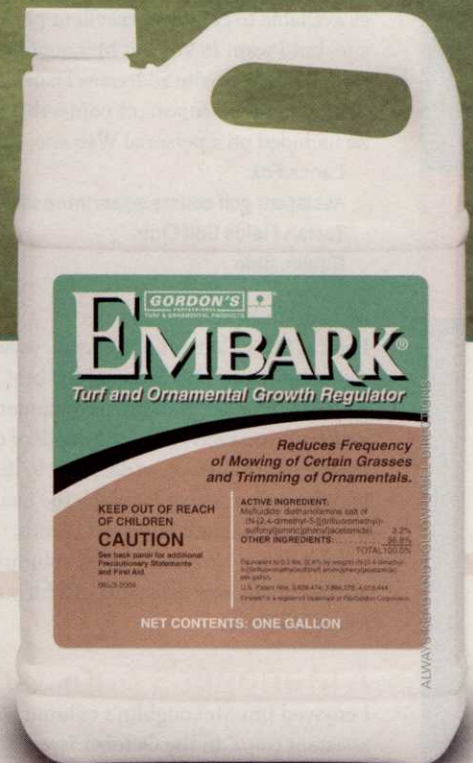
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Larry Emery, GCs
Hidden Vally Country Club
Sandy, UT



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Get the ball rolling

It's uplifting to see other assistant golf course superintendents in the same predicament I'm in ("Becoming more involved," January, page 10). I'm going into my sixth season as the assistant at Framingham Country Club. During the past two years, I've been one of the finalists to be hired as a superintendent, but have failed to get the jobs. Although I'm happily employed, I feel it's time to move on. The local chapter in New England doesn't have a designated committee for assistants, so congratulations to John Ekstrom for getting the ball rolling for us who are second in command.

Jeffrey Urquhart

Assistant golf course superintendent
Framingham (Mass.) Country Club

Web-site guidance

I read Jim McLoughlin's column, "Unprepared," in the September issue (page 20) after my superintendent cut out the article and told me implementing a strategic plan for my next job opportunity is something I seriously should consider doing. The personal Web site is something I'm interested in developing to help achieve my career goals. I have many resources available to create an excellent personal site, but I want to know if McLoughlin has any samples or Web-site addresses I can visit to get ideas or a list of important points that should be included on a personal Web site.

Lance Fox

Assistant golf course superintendent
Tartan Fields Golf Club
Dublin, Ohio

McLoughlin's response:

Look at Steve Renzetti's Web site, www.stevenrenzetti.com. This is one of the best. Steve paid \$900 for his Web site development. As an assistant, you won't have the depth of credentials to match Steve's, so don't try to duplicate his site; rather, strive to match the quality of his site and the judicious use of photos.

Look at my November 2004 column to get an idea about how assistants can fill out an initial Web site.

A manager's priorities

I enjoyed Jim McLoughlin's column, "The assistant trap," in the October issue (page 16).

His comment about club managers having a bias to the hospitality industry seems to imply country club managers don't have an interest in golf, that, perhaps, we're more into "pots and pans" than sporting elements of clubs.

Golf professionals and course superintendents are closer to golf's family circle, but that doesn't mean a manager isn't part of that component. A g.m. needs to understand what's happening in various areas – the course, golf shop, tennis shop, pool, accounting, marketing, etc. – to be an accomplished leader of a club's staff.

Most managers wish they had more time to play golf. I'd love to be able to play more and be a better player. I'm aware of managers who are in a routine of playing golf well and often. Many have set tee times at their clubs with members. I take members to another club, as a guest of the manager, and enjoy a different club operation and get to know a few members better.

Managers who are regular players might be perceived by members as not paying attention to the many business aspects of clubdom. Managers need to be able to understand the conditions of their courses and assist the superintendent and golf pro with their areas of responsibility. But they don't need to play the game at every appropriate opportunity to be "in." Managers must be visible and accessible to members because they're the go-to person when issues arise. Being on the course makes this difficult.

I caution assistant managers to avoid playing at every opportunity to become part of the golf family. The golf pro and superintendent should be more skilled at the game than the manager. Our positions require us to be versed in all areas of a complex business. We're responsible for the entire club operation, and generally, there isn't enough time to accommodate both. Our goal should be to be accomplished in all disciplines mentioned and be a respectable player of this great game.

George Oestreich, CCM
General manager
River Crossing Club
San Antonio

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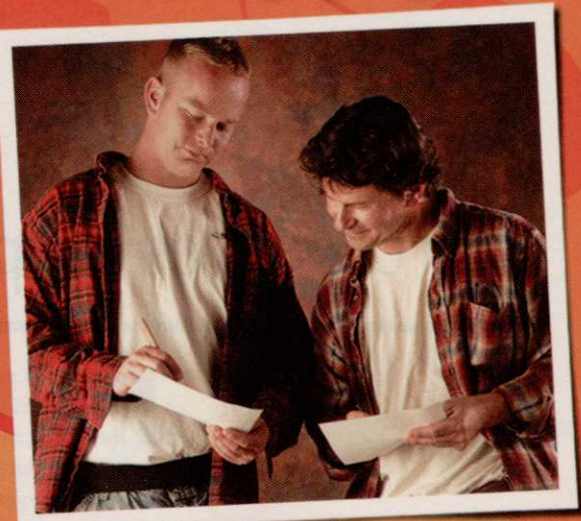
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NAME: Bill Kemp DATES: 9-13

DAY	START	LUNCH	END	JOBSITE	WORK DONE	HOURS
MON	7:00	1/2	3:30	Brentw.1		8
TUE			3:30			8
WED			4:00	↓		8½
THU			4:00	Brentw.2		8½
FRI	↓	↓	4:00	↓		8½

Employee Signature: Bill Kemp TOTAL HOURS: 41½



Reality?

Employee Report

Kemp, Bill Date Range: 4/9/2007 through 4/13/2007

Day	Date	Jobsite	Start	Stop	Cost Code	Hours	Total
Mon	4/9	Brentwood 1	7:08 AM	12:05 PM	Placing The Pin	4:57	7:38 hours
			12:41 PM	3:22 PM	Bunker	2:41	
Tue	4/10	Brentwood 1	7:12 AM	12:07 PM	Placing The Pin	4:55	7:35 hours
			12:43 PM	3:23 PM	Mowing	2:40	
Wed	4/11	Brentwood 1	7:12 AM	12:02 PM	Placing The Pin	4:50	7:53 hours
			12:46 PM	3:49 PM	Bunker	3:03	
Thu	4/12	Brentwood 2	7:17 AM	12:19 PM	Placing The Pin	5:02	7:58 hours
			12:50 PM	3:46 PM	Bunker	2:56	
Fri	4/13	Brentwood 2	7:13 AM	12:07 PM	Placing The Pin	4:54	7:49 hours
			12:44 PM	3:39 PM	Mowing	2:55	

Signature: Bill Kemp Kemp, Bill

Total **38:53 hours**



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Deal continues despite shareholder reluctance

John Dere's proposed acquisition of LESCO represents the largest from a revenue standpoint in the equipment manufacturer's 170-year-old history. It also represents, perhaps, Deere's most important undertaking in its efforts to become a business partner to golf course superintendents and lawn and landscape contractors nationwide.

Because the Deere/LESCO transaction won't be finalized until later this spring, executives at both companies couldn't reveal specific plans about the future of both companies. It's clear, though, LESCO and its 332 service centers and 125 Stores-on-Wheels will be moved under the John Deere Landscapes umbrella.

JDL has 300 locations throughout the United States and executives at Deere indicate the site overlap isn't significant. JDL is a distributor of irrigation, nursery stock, outdoor lighting and landscape supplies primarily to the installation and new construction markets. In contrast, LESCO mainly serves the maintenance side of the green business as a distributor of pesticides, fertilizers, seed and other soft goods. Deere views the purchase of LESCO as an opportunity to strengthen customer relationships by maintaining the properties their customers might only install currently.

As Deere integrates LESCO into its JDL locations and fulfills its vision of becoming a better business partner with its customers, a LESCO shareholder filed an appeal against the sale citing the price per share undervalues the intrinsic value of LESCO. The definitive merger agreement

calls for the purchase of LESCO for \$14.50 per common share in cash.

Hawkshaw Capital Management LLC owns more than 1.2 million shares of LESCO common stock, which is said to represent 13.6 percent of shares outstanding.

"LESCO's intrinsic value is significantly higher than what Deere & Co. is offering," says Frank Byrd, managing member of Hawkshaw in a prepared statement. "The proposed price of \$14.50 at best captures the cost synergies available to Deere & Co. as a strategic acquirer, but fails to adequately compensate LESCO shareholders for a return to normal operating earnings and the value creation from continued expansion of the company's high return on capital retail service center business."

A recent 52-week period showed LESCO stock ranging from \$6.70 to \$18.17. It traded at \$10 a share in February and listed at \$14.40 the same month.

Last year, LESCO was rejuvenating its standing in the golf industry following a decision by previous management to eliminate field sales staff to reduce costs. The move backfired, costing sales in a business in which relationships play a key role.

The sale couldn't have come at a worse time – immediately following one of the worst operating years in LESCO's history, Hawkshaw says. Between lost sales, raw materials costs and restructuring, the company posted a \$20-million year-end operating loss.

The issues that precipitated the stock's decline are temporary and

largely fixable during the next two years, Byrd says.

Jeff Rutherford, LESCO's c.e.o., couldn't comment about the sale or the shareholder complaint, but says the company was scheduled to publish its proxy earlier this month.

As the sale continues through shareholder and regulatory approval, Deere executives will work with distributors on both sides to determine to best way to deliver products and services to its customers.

"For our customers, this represents the joining of two great brands, innovation and quality built on strong customer service," says Gregg Breningmeyer, director of sales and marketing for John Deere Golf & Turf One Source. "The positive reaction we've heard from our customers and associates affirms why this makes sense. It's more resources for our customers and an expanded portfolio of goods and services than in the past."

No decisions have been made about future branding of the combined company; however, Breningmeyer says Stores-on-Wheels remain in its plans.

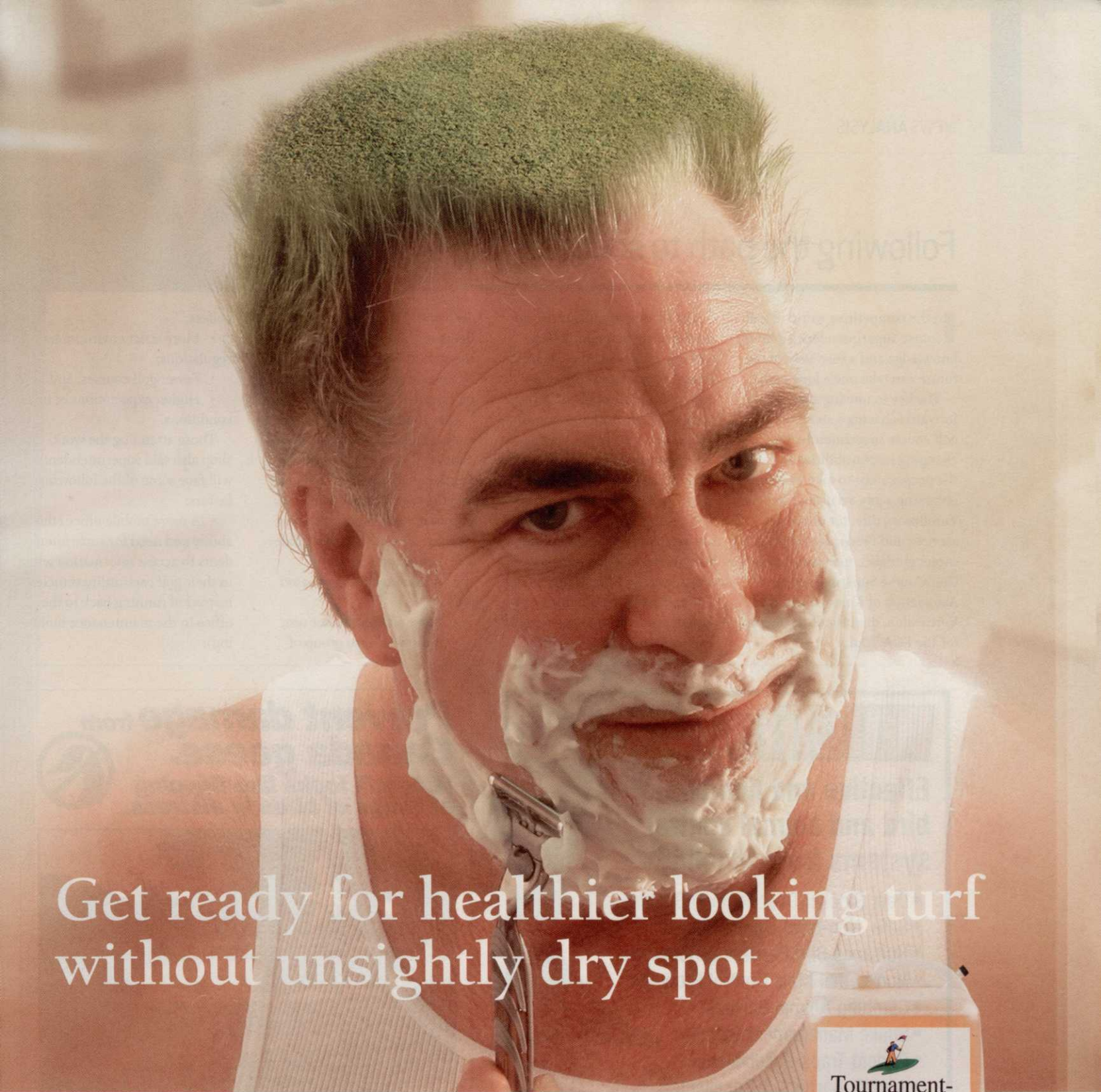
One Source is a work in progress, he adds.

"We don't want to be all things to all people," he says. "We want to find out what appeals to our customers and take advantage of what they want."

While there are redundancies between LESCO's Cleveland corporate headquarters and JDL's headquarters in Alpharetta, Ga., Breningmeyer says it's too soon to say whether LESCO's office will remain open. — Cindy Code



Decisions about the future branding of the combined company haven't been made yet.



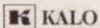
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Following the path to success

In the competitive world of golf course superintendents, a bit of knowledge and a road map of the future can take one a long way.

The key to moving a career forward is having a sense of a golf course superintendent's changing responsibilities and the proper steps to take when obtaining a job, according to Lyne Tumlinson, director of career services and Frederick Thomas, career guidance manager for the Golf Course Superintendents Association of America and Paul Vermeulen, director of agronomy for the PGA Tour.

The three golf industry professionals hosted an interactive half-day seminar at the GCSAA's annual educational conference, Feb. 19 through 24 at the Anaheim Convention Center in California.

Superintendents face a changing industry as society presents more choices and more constant updates in technology, Tumlinson says. She quoted John Stebbins, western region v.p. of East West Partners Club Management, who told her, "People think superintendents are magicians or celebrities who have pixy dust."

The GCSAA's Frederick Thomas offers career advice to superintendents in Anaheim.
Photo: Heather Wood



To better prepare superintendents or those who wish to hold the post, the professionals helped to educate attendees on what will be expected of them.

The audience, which included a mix of golf course superintendents and assistant superintendents, collaborated to name factors they predict will come into play in the golf industry during the next 20 years. They include:

- Longer golf courses;
- A more technology-based job;
- More efficient water use;
- A more diverse group of

golfers;

- More strict environmental regulations;
- Fewer golf courses; and
- Higher expectations of turf conditions.

Those attending the workshop also said superintendents will face some of the following factors:

- A more mobile office (the ability and need for superintendents to access information while in their golf cars/utility vehicles instead of running back to the office in the maintenance building);

Wildlife Control

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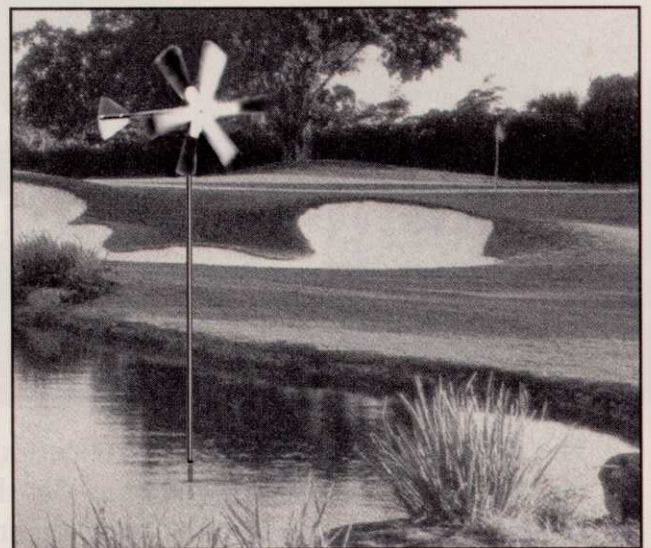
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TAKING ACTION

To progress in one's career, golf course managers need to evaluate themselves first. Look for aspects of job performance that could be improved and set goals to achieve, Tumlinson

says. For some, goals might include reducing the work week to 40 hours and learning to train and delegate better. For others, committing to continual learning in the industry or working to strengthen family or community relationships might be what superintendents or assistant superintendents work toward.

Vermeulen has seen countless signs of golf course mismanagement at courses he's visited, including bunkers that haven't been raked or facilities that aren't kept in good working condition. These reflect poorly on a superintendent and can negatively affect any chances of advancement.

"You can't hide your weaknesses as much as you think," he says.

Once a superintendent believes he has marketable qualities and wants to aim for a higher position, he shouldn't be discouraged about intimidating career-related numbers. For instance, it's said more than 175 candidates apply for any given superintendent position.

"That's a lot of candidates, but how many of them are qualified?" Tumlinson says. "The number of qualified candidates probably is much smaller."

People also often speculate the number of turfgrass students entering the job field exceeds the number of open positions in the industry, Tumlinson says. But many of those students don't end up entering the golf course industry. Still, the number of job candidates can be overwhelming, so the best way to stand a chance is to stand out.

JOB APPLICATION BASICS

When advancing a career, applying for a job is inevitable. The first step is to find a way to set yourself apart from the other candidates. That might simply mean displaying key competencies needed for the job. Tumlinson identifies them as communication skills, leadership, operations management, personal skills and resource utilization.

Exhibiting these skills to a potential employer is a plus, but getting to that point is equally as important. It starts with the first correspondence with the hiring company: the resume and cover letter.

A resume tells employers who you are and what you want (objective). It also has to be job specific and include what you have to offer (three to five bullet points) and a list of accomplishments. Employers like to see numbers to

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The GCSAA's Frederick Thomas offers career advice to superintendents in Anaheim. Photo: Heather Wood

the interviewers are likely amateurs with little experience with the hiring process, Vermeulen says.

"Sell to their weaknesses," he says. "Make your moments with the selection committee count."

Interviewees can do this by considering the committee probably lacks:

- Knowledge of what the job requires;
- Understanding of the education required;
- An idea of what they want from the golf course;
- Knowledge of the hiring process; and
- An abundance of time.

The committee probably will favor the candidate with the least resistance, Vermeu-

Career Help

➤ For more resources to help advance your career, contact the GCSAA career services office at www.gcsaa.org/career.

len says. A few other tips for the interview include:

- Don't mention salary;
- Don't chew gum or smoke;
- Don't use profanity;
- Ask questions about the position;
- Practice good communications and presentation skills; and
- Avoid poor posture.

Above all, set yourself apart. Throughout the process, remember to make the application process about the employer.

"All they want to know is what you can do for them," Thomas says. — Heather Wood

illustrate these.

Thomas says a cover letter is a must. "The resume won't get read without a cover letter," he says. The letter should include short, concise sentences explaining why you're writing, what you have to offer and how you will follow up with the potential employer. If you're called for an interview, take advantage of the fact



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NEWS ANALYSIS

Course marketing: Do something remarkable

To succeed, golf courses should set themselves apart from the competition, says marketing expert Terri Langhans.

To bring more business to a golf course, golf course owners and managers should remove their marketing hats and think more like a "normal" person.

Langhans, c.o.e. (chief of everything) of Blah Blah Blah Etc., shared this message at her presentation on Maverick Marketing at the National Golf Course Owners Association's annual conference Feb. 20-24 in Anaheim, Calif. At the conference, held in conjunction with the Golf Industry Show, Langhans told the crowd to think outside the box.

"We spend so much time trying to get away from ads," she says. "When you put on your marketing hat, you're joining the chorus. Don't do what everyone else does."

It takes a different type of thinking to get attention and draw in new and returning business, she adds. Start by connecting with the customers before convincing them to give the course their business. This is not done by spewing out as much information as possible about the facility.

"We love to inhale the aroma of the product and then we exhale ad nauseum to the target," she says.

First, think of one or two attributes or attraction factors. What is the need or want that is satisfied by those attraction factors? Keep in mind that green fees usually aren't a wise factor to market she says.

Instead, marketers should think about the strategy from their own perspectives and what they would want to hear. "This will keep you from being poisoned by the exhaust fumes," Langhans says.

A successful marketing campaign is one that illustrates how a golf course sets itself apart from others. Langhans suggests that golf course managers and owners make a list of its services and note how it is different from other area clubs' services. These include signage, voice mail, the people who answer the phone, letterhead, the Web site and parking.

Consider:

- What is the club doing that is the same, expected, ordinary or usual?

- Switch it up a bit – what can be done differently?

- How can each golfer's experience be made memorable? (An example Langhans has heard is playing music at the first tee box to ease golfers' nerves)

- What services would be offered if this wasn't a golf course? (Example: a hospital started offering valet service)

By doing something different, golf courses can do something remarkable—that is, something that is worthy or a remark, Langhans says. This is the best way to win customers, she adds, because the best marketing is word-of-mouth mention.

Langhans says this is the way to gain publicity rather than "doing" marketing, which is how many people often think of the process. "Branding isn't something you do," she says. "You become a brand; you achieve it."

People often make decisions based on emotion rather than fact, so Langhans suggests marketers play to this tendency. Show potential customers the course has a personality.

"Describe the business as if it were a walking, talking person," she says. Is it a man or a woman? What usually is a golfer's first impression of the course or facility? Is the course a wallflower or a mingler? "The best marketing in the world sounds like a letter from an old friend," she adds.

Langhans pushes the idea of a recommended daily activity—something managers or owners can do on a daily business to spread the word about the course. RDAs including attending networking meetings, calling wedding planners to get the word out about the facility and making one person's day a little better are activities that can add to the daily promotion of the course.

Ultimately, she says, every employee is a member of the course's marketing department. Each employee's action has the potential to leave an impact on the customer and could determine whether the customer returns.

"Think of yourself as being in the people business rather than the golf business," she says.

For more information, visit www.blahblahblah.us. – HW

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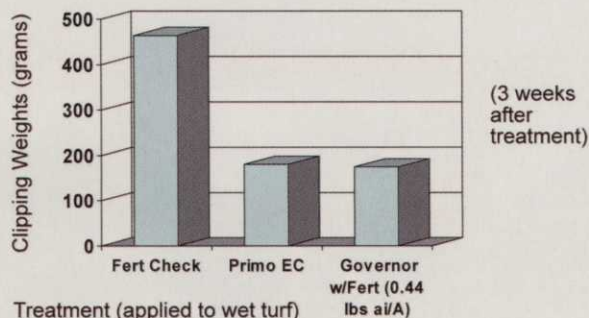
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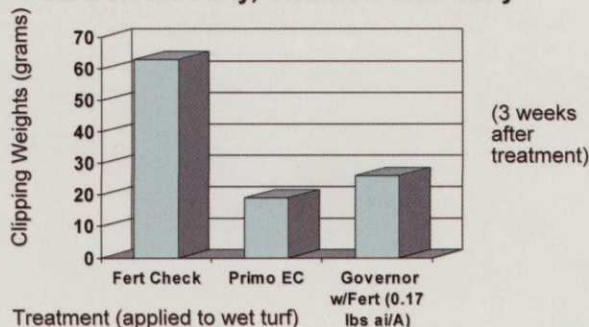
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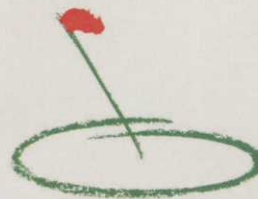


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In Texas, two greens are better than one

What can be done when golf course greens are struggling to grow in, resulting in less than desirable playing conditions?

How about creating a second set of greens?

That's how management of Willow Springs Golf Course approached the problem. The family-owned course outside of Fort Worth, Texas, experienced difficulties with a Tifgreen Bermudagrass grow-in, so the grounds management crew started fresh with a new set of Bermudagrass greens.

One set of greens is used in the summer and the other in the winter. Although the approach had its costs up front, the long-term effects have made it worthwhile, says golf course superintendent Troy Golden.

"The course lies out a little differently (every six months), so members enjoy the change," he says. "Some are laid out side-by-side, and others are separated by a sand trap. A hole might be par 4 in the summer, but have a different setup and be a par 3 in the winter."

Additionally, maintenance is

easier and less disruptive when there are two sets of greens.

"We can do cultural practices such as aerification to the greens we're not using," he says. "We never have downtime because of major agronomic practices."

The summer greens maintenance routine usually starts in March, when the crew aerifies and verticuts them. After the greens heal, they're included in the regular routine with the winter greens.

"We ride-mow all our greens, so it's not that big of an extra effort," he says. "As soon as

the summer greens are in good condition (usually in May) and I have ability to water and fertilize them more, we open them for summer."

Another advantage is that if one course's greens aren't at an acceptable quality, the crew can switch to the other set so golfers almost always find favorable course conditions. This ability has given Willow Springs an advantage when nearby courses have had trouble keeping greens in top form.

For example, Golden says that when nearby courses are losing



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money because of transition problems, rounds at Willow Springs increase. But despite the increase, the course doesn't suffer from the problems usually associated with heavy play.

"We average 44,000 to 56,000 rounds per year, but on two greens, just divide that in half because golfers are only on greens for half a year," Golden says. "You don't have to battle the constant wear problem that most courses do."

Golden doesn't have the expenses associated with employing a huge grounds maintenance crew; he employs about four in the winter and six in the summer.

"It's more work a couple months out of the year, but for

the most part, it's just normal maintenance," he says.

Golden doesn't know of any other courses that have dual greens and guesses some might be deterred by the initial cost associated with installing a second set. But, he adds, if a major architect tried it on a course, the concept probably would catch on quickly and spread to other courses.

Another consideration that should convince superintendents about the concept is that there's always a plan B.

"I sleep better at night because I have job security," he says. "If something goes wrong, if there's a catastrophe on the greens, I have a backup." — HW

Association heads cite teamwork as main factor of show's success

The official numbers weren't out at press time, but the heads of the three partnering organizations that hosted the Golf Industry Show say early results point to success, especially with educational conferences.

"The feedback has been 100-percent positive," says Steve Mona, c.e.o. of the Golf Course Superintendents Association of America.

The GCSAA, the Golf Course Owners Association of America and, for the first time, the Club Managers Association of Amer-

ica hosted the trade show and individual education conferences Feb. 19 through 27 in Anaheim, Calif., and promoted the need for teamwork.

Show-related numbers, provided before the show ended, indicated the attendance reached 23,000 — the highest of the three GIS events that have been held. The number of exhibitors, which has reached about 700 in previous years, was on track to reach 1,000 this year, according to the GCSAA. Mona cites the addition

(continued on page 119)

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Jack Brennan founded Paladin Golf Marketing in Plant City, Fla., to assist golf course owners and managers with successful marketing. He can be reached at jackbrennan@tampabay.rr.com.

CALCULATING YOUR ROUNDS

This is a good time of year to be involved with golf course marketing. Ideally, the marketing effort for a facility begins just after Thanksgiving and continues with a targeted sales process that lasts through at least March. The only difference between Northern golf courses and Southern golf courses is that courses in the South are slammed with business at times during the winter when courses in the North are closed. However, management of all courses should be reorganizing their marketing strategies and implementing their sales tactics at this time.

Whether your course is closed for the winter or you're watching every tee time book, by now, you've evaluated the past year's successes and shortcomings. But what constitutes market success, and what constitutes market failure? Where do you start with your evaluation? I'll give you a hint: It has little to do with budgets, profit plans or making a bonus. Reaching those types of objectives is always satisfying, but you should ask yourself how your course fared with regard to market share? What's your share of the market, and what's your fair share of market rounds?

One of the first things I do when I'm on a new assignment is calculate a market demand analysis. I want to know how many rounds of golf a market (i.e., the population) should be playing, how many golf courses are in the market, and what the average number of rounds being played per an 18-hole equivalent is. Knowing these numbers, you can determine your course's average market share.

But there are numerous subjective adjustments or considerations that must be made to provide a closer view of your course's average share or fair market share. For example, municipal courses and resort courses usually will generate more rounds than market averages, while private clubs will generate slightly fewer rounds than market averages.

To conduct your own market demand

analysis, start with the National Golf Foundation's participation rate and average rounds played per golfer for the state you're in. For example, for Florida, the NGF's participation rate is 10 percent. The average annual rounds per Florida golfer was 33.3 for 2005, according to the NGF.

The next step, determining your market area, is more subjective. First, determine where your course draws most of its play from. Two accepted areas for medium-level and above public golf are a 20-mile radius and a 40-minute drive time. Choose the one that fits the majority of players who golf at your course. With that population figure, you can calculate the beginning number of market rounds played. However, some demographic adjustments also must be considered. Determine the first population- or consumer-based number first.

“But there are numerous subjective adjustments or considerations that must be made to provide a closer view of a course's average share or fair market share.”

For example, let's say a course's market has a population of 100,000 within a 40-minute drive. Ten percent of 100,000 equals 10,000 golfers, and 33.3 multiplied by 10,000 golfers equals 333,000 market rounds of golf. If there are nine 18-hole equivalents in a 40-minute drive area, there are 37,000 average rounds played per 18 holes. That's the starting point.

One calculation or adjustment to consider is that NGF's state participation rate and state average rounds calculations are for the



population age 18 and older instead of the total population. So, an adjustment factor of 17 percent to 25 percent is appropriate for the majority of golf markets to be inclusive of the 0 to 17 year olds because they participate less and play less frequently, according to Edgell Consulting and Pellucid Corp., golf market research specialists. By adjusting the Florida market average by 17 percent, average rounds per 18 holes come out to 32,190 rounds. With a 25-percent adjustment, average rounds come out to 27,750.

Average age and household income are the two demographics that impact rounds played calculations the most. Remember, we're trying to get a snapshot of a market. If the average age for a market is higher than the state's average age, increase the number of average rounds by that percentage. For example, if a market has an average age that's 5 percent higher than the state's, average rounds increase by 5 percent to 33,800. Now, if the average household income also is higher than the state's average household income by, say, 2.5 percent, don't increase the new calculation by that amount. Go back to your original 32,190 market average, multiply by 1.025 for what now creates a range of 32,995 to 33,800 for average market rounds. In general, as golfers age, they play more golf; and as their incomes rise, they play more golf.

Use these types of calculations as an analytical opportunity to see how your course is performing relative to market share as a whole. Are rounds at your course within this range of market averages? Does that mean your share is good, bad or indifferent relative to your course's positioning in the market? What's your realistic fair share of market rounds? These are questions of which you should know the answers. **GCI**

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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@jeffreymbrauer.com.

SAFETY'S LINK TO LITIGATION

"Safety first" is an important mantra for golf courses because golf isn't supposed to be dangerous.

No one likes to be involved with litigation, and because of that, the number of golf course-related lawsuits is small. Gradually, litigation has made golf courses more responsible for golfer safety. Older courses that have closely spaced holes often have the most problems.

If you're currently preparing a master plan, you might evaluate your course in terms of risk rather than risk and reward. As a golf course architect, I've seen legal responsibilities arise from wayward shots, cart paths, ponds and steep slopes.

WAYWARD SHOTS

Most state laws consider golf inherently dangerous and unintended shots as recognized risks. Thus, golfers voluntarily have assumed the risk of wayward shots, often relieving courses from liability. However, courses must minimize their risk by keeping the preponderance of golf shots out of high-traffic areas such as greens, tees, practice areas and cart-path parking areas where danger is greatest.

Parallel fairways usually are less critical because golfers fan out. Protecting adjacent boundaries is more critical legally because people using adjacent property might not be as aware of risks as golfers. If one area of your course has repeated incidents, the danger is reasonably foreseeable legally, and you need to make changes.

Generally, the best defense is distance separation. Studies suggest most shots land within 150 feet (175 preferred) and 15 degrees (22.5 preferred) on either side of the intended line of play. That's the minimum distance to place fairway centerlines from adjacent property in play areas. Fairway centerline spacing is often

as little as 225 to 275 feet apart because the common rough buffers both holes. Tees and greens might be closer but not much. We need to leave room for high-use cart paths.

Aligning critical areas outside the safety zone is just as important as pure separation for safety of adjacent areas. Older courses find that adding back tees for length often reduces the safety of other areas. Sometimes, it helps to realign them and use hazards to define the line of play to guide shots away from dangerous areas.

Adding vegetation buffers isn't a foolproof screen, and balls occasionally ricochet unfavorably. Despite their ineffectiveness, courts generally view plantings as good-faith safeguard efforts. One club was found liable after a tree was removed, creating an area subject to wayward shots. The club argued that an open, unobstructed sight line made oncoming golfers more visible, and thus safer, although to no avail.

Netting and screens obviously are better for tight areas, but they're such a visual distraction courses hate to use them, even if necessary.

CART PATHS

Because most golfers use carts, cart-path accidents have increased throughout the years. Many golf course architects recommend courses avoid serving alcohol (not practical) and/or use a qualified engineer for cart-path design (not inexpensive). Path designers – golf course architects or not – still must provide adequate room at tees and greens, gentle grades, speed bumps, broad curves, good drainage, and safety railings for bridges and drop-offs.

An issue that's becoming more prevalent is safe road crossing. Tunnels are preferred more than surface crossing on

roads other than minor ones with good visibility.

PONDS

At least one irrigation pond is a necessity on a golf course, yet ponds can be risks to golfers. Some risk their lives to save a \$4 ball, and kids find ponds to be an attractive nuisance. There's debate about how to make them safer. A safety shelf allows easier exit, but also easier entry. A steep-banked pond allows balls to roll to the bottom, eliminating temptation to retrieve them. Lawyers for victims will argue that whatever you have is unsafe, so the best recommendation is to control unwanted access, lest vandals damage the course or hurt themselves at night. Fencing all perimeter openings is great when practical. If you're adding a pond, keep it within the course interior as much as possible.

Lightning protection (shelters or warning systems) is common, especially on courses spread throughout housing developments with no shortcut to the clubhouse. However, some experts recommend avoiding warning systems because it's an admission that lightning is your responsibility and obligates you to provide even more protection.

STEEP SLOPES

Occasionally, golfers fall when they're on steep slopes, steps, retaining walls and deep bunkers. Consider eliminating steep slopes entering busy areas such as tees and greens. You might need to conform to Americans with Disabilities Act requirements anyway.

The industry might never provide a risk-free golf course, but design is part of reducing that risk. Many people feel golf courses should provide free sunscreen, stretching areas and painkillers. Can sports psychologists and gambling advisors to protect golfers from bad thoughts and bets be far behind? **GCI**

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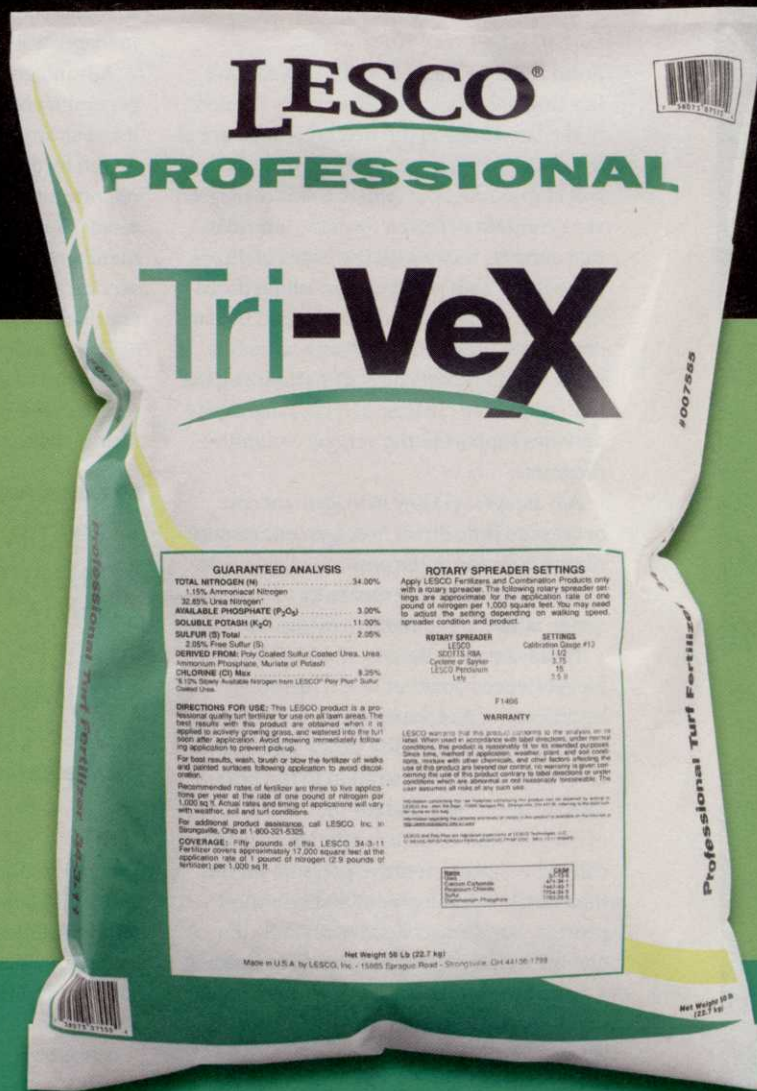
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Jim McLoughlin is the founder of TMG Golf (www.TMGgolfcounsel.com), a golf course development and consulting firm, and is a former executive director of the GCSAA. He can be reached at golfguide@adelphia.net or 760-804-7339. His previous columns can be found on www.golfcourseindustry.com.

CLUB MANAGEMENT OPTIONS

Very few in the golf industry understand the diverse impact each of the three club management formats profiled below can have on the quality of club operations and the careers of professional staff. The purpose of this commentary is to educate regarding club management options.

COMMITTEE-DRIVEN FORMAT

From the time the U.S. Golf Association's five original charter member clubs opened in the late 1890s to the first oil crunch era of the mid-1970s, almost every equity private golf club throughout America was managed via a committee driven format – a format that survives today with the board of directors setting club policy and in which board members are appointed to chair and manage committee programs. Professional staff is hired by and reports directly to their respective committee chairmen. A club manager provides support to the various committee programs.

Advantages: (1) low management cost because so little direct management responsibility is vested in the position of club manager; and (2) a proven capability to generate ample budgetary funding to meet club needs.

Disadvantages: Because the club has inexperienced amateur board members setting policy and managing departments, club operational stability varies considerably from one administration to the next. This inconsistency undermines the quality of club life and economic efficiency, which collectively place negative pressure on the membership development and retention process. For these collective reasons, the committee management format has become a dying breed from the late 1970s on, surviving primarily throughout northeast America.

GENERAL MANAGER-DRIVEN FORMAT

Once the mid-1970s oil crunch changed the economics of the country, and, accordingly, the economics of the club industry as well (see my March 2006 column), the club industry could no longer trust direct

management responsibility to the hands of wavering amateur board members serving as committee chairmen. The obvious answer to this problem was to invest more direct management responsibility in the office of club manager, with the board of directors continuing to set club policy. Thus, the new and continuing era of the club general manager was born.

Advantages: The concept of a quality general manager remedies all the problems listed above generated by the committee-driven format, providing a club with its best opportunity for stabilized quality management. Consequently, better-qualified club members feel comfortable seeking board service, which elevates club performance considerably.

Disadvantage: Long-tenured general managers tend to dominate club governance, thereby creating, in due time, a staff-driven format that has its own set of problems.

Clearly, the general manager-driven format delivers more consistent quality management than any other format.

CONTRACT-MANAGEMENT FORMAT

Uniquely, contract management turns the entire club management and maintenance responsibilities over to an outside company, which provides complete staffing and operates the club within the budgetary parameters set by the club's board of directors.

Advantages: This structure eliminates the possibility of bad management by providing a minimum level of acceptable management, stabilizes operations, reduces the cost of goods through central purchasing, and spends available funding efficiently.

Disadvantages: While protecting against

bad management, this format unfortunately prevents a club from achieving a high quality level of management because the industry's best professional people don't seek career advancement through contract company employment. Also, the added layer of outside management cost can be expensive, from \$100,000 to \$1 million annually.

SUMMARY OBSERVATIONS

How many of the approximately 4,600 equity private golf clubs throughout the country use each management format? Committee driven – about 1,200 clubs and shrinking; general manager driven – about 2,800 clubs and growing; contract management – about 600 clubs with static growth.

Which format offers the best possibility for consistent solid club management? Clearly, the general manager-driven format delivers more consistent quality management than any other format. Contract management is safe but never exciting, and committee driven management is highly volatile and capable of going every which way.

What's the impact on golf course superintendent's careers? While committee-driven clubs generally make the most maintenance funding available, they also dismiss a highly disproportionate share of all superintendents throughout the country because of board politics and inexperience. The best place for a superintendent to work is under a solid general manager who's secure working with a strong staff (not all are). The benefits of working for a contract company are always worth noting: better job security, optimum fringe benefits, constructive professional supervision of the superintendent's work (not available anywhere else), and meaningful learning opportunities through company education and procedural infrastructure.

The qualifying element of contract management is that superintendents will never earn top money. The moral of the story, therefore, is to work under the contract management structure early in one's career, then switch out to gain access to pedigree jobs that will qualify a superintendent for top money if and when this becomes important. **GCI**

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MASTERING THE TASK AT HAND

“My golfers expect the course to be perfect every day.”
 “My employees just can’t learn to do task the way they should.”

We all hear statements like these, but they’re not limited to golf course superintendents. Customers’ expectations of products and services without defects and the difficulty meeting those expectations dramatically impacts every industry. For example, the introduction of Japanese cars produced with a “no defects” mentality has had profound impact on the quality of cars we drive.

So how do we instill this “no defects” mentality in golf course maintenance staffs? Well, it begins with mastering the tasks the staff must complete every day to produce course conditions golfers demand. Here are two examples of mastering tasks:

1. A couple years ago, new road construction provided me a better route to work. I learned the new route in a day or two. It took several months before I never reverted to the old route. That time was used to master the new route (no defects).

2. A friend of mine is a good recreational golfer. A couple years ago, he working with a pro and dramatically changed his swing. In a couple months, he learned the new swing, and many of his drives were his best ever. With other swings, however, he would revert back to his old swing with ugly results. At this point, he had to really focus to consistently execute the new swing perfectly (no defects). He had not yet mastered the new swing. It took about two years before he was able to do so.

Just like these examples, everyone has two phases of mastering a task or a new routine in place of an old one: (1) The shorter and easier part – learning the new task or new routine and (2) the longer, more challenging part

– mastering the new task or new routine. The key to the first step is to teach the new task or new routine effectively. The key to the second step is to maintain focus on the new way of performing the task until the new routine becomes a habit.

A manager recently said, “I learned teaching is more than just showing employees what to do and expecting them to do it.” For this manager, the first step, teaching, isn’t easy. It’s more than just showing. The simple but effective prepare-tell-show-do-review job instruction training procedure works best.

Prepare. Describe to the employee what you’re about to do. Create a relaxed environment in which you won’t be interrupt-

ed. Acquire and arrange needed materials.

Tell. Clearly, slowly and carefully tell the learner how to do the task. Explain why each step is important and why it’s done the way it’s done.

Show. Show the employee how the task is to be performed. Encourage questions and reinforce why the task is completed this way.

Do. Let the learner complete the task. Have the employee repeat the steps just demonstrated. Provide a few handwritten notes or a checklist to help the employee remember each step. Coach the employee, making suggestions and answering questions as needed.

Review. After leaving the employee to perform the task independently, check back to see that the employee is completing the task correctly. Provide quality feedback that reinforces correct steps and redirects those not completed correctly.

You’ve now completed step one, but the goal of the employee mastering the task has just begun. It takes 21 to 30 days to establish a habit, according to research. When completing a task correctly becomes a habit, one is well on the way to mastering it.

The key to mastering a task is maintaining focus on the correct procedure until it’s a habit. Focus is maintained by encouragement, compliments for success and corrections of any defects that happen. Superintendents must not overlook little errors because they’ll preclude mastering a task. Superintendents are great coaches when they encourage, support, correct and teach their employees to excel.

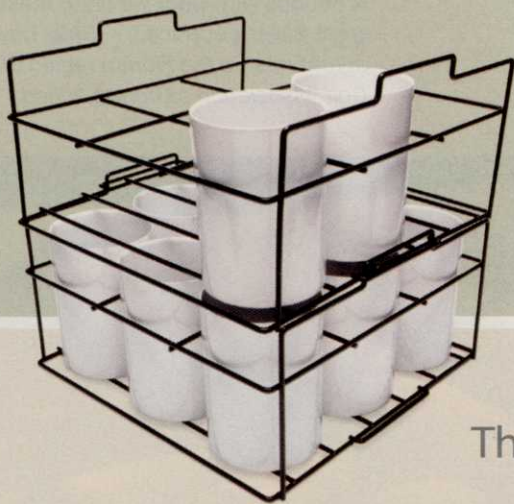
Whether you’re playing a pickup basketball game, a round of golf or a friendly card game, you’re more focused when you’re keeping score. The same holds true for employees. They will be more focused when you establish clear performance expectations and then track actual performance compared to the expectations.

Mastering a task equals teaching plus a continued focus. **GCI**



Employees will be more focused when you establish clear performance expectations and then track actual performance compared to the expectations.

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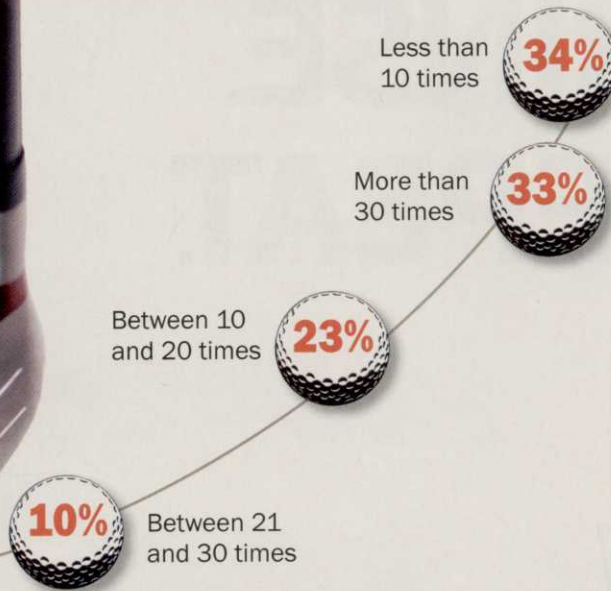
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AT THE TURN

Fore!

As a golf course superintendent, how often do you play golf annually?

193 responses



Quotables

"The first time I rode with him around the golf course at Pebble Beach, he asked me more than a hundred questions, and later that night when we were having dinner, I realized I didn't learn anything from one of the greatest golf course superintendents in the world. – **Mark Michaud**, golf course superintendent at Shinnecock Hills Golf Club in Southampton N.Y., about Paul R. Latshaw

"I made it a good investment because I've built the best courses at the best locations." – **Donald Trump** about why he thinks the golf market is a good investment right now

"What we do for the health of the turf is at odds with what we do to make a great playing surface." – **Todd Lowe**, an agronomist in the Florida region of the U.S. Golf Association's Green Section

How good of a negotiator are you?

Negotiating is more common in the golf industry than you think. Negotiations are common with cart leases, labor agreements, employee contracts and equipment leases. To the right are some tips help you become a better negotiator. They were presented a few months ago at the National Institute of Golf Management by Bob Quintella, deputy director of the parks, recreations and neighborhoods department for the city of Modesto, Calif.

Top 10 tips for a successful negotiated contract

1. Develop a win-win philosophy
2. Know what's negotiable and what's not
3. Allow for leeway
4. Do your research
5. Be polite, yet firm
6. Make your final offer clear
7. Know when to be silent
8. Commit in writing
9. Review previous contracts
10. Set negotiation parameters

The 10 biggest faults of negotiations

1. Inadequate planning
2. Inadequate research of issues
3. Failure to negotiate internally first
4. A rigid mindset
5. Giving concessions too quickly
6. Responding too quickly to demands
7. Putting yourself in customers' shoes
8. Not calling a time-out
9. Letting egos interfere
10. Inattentive follow-through

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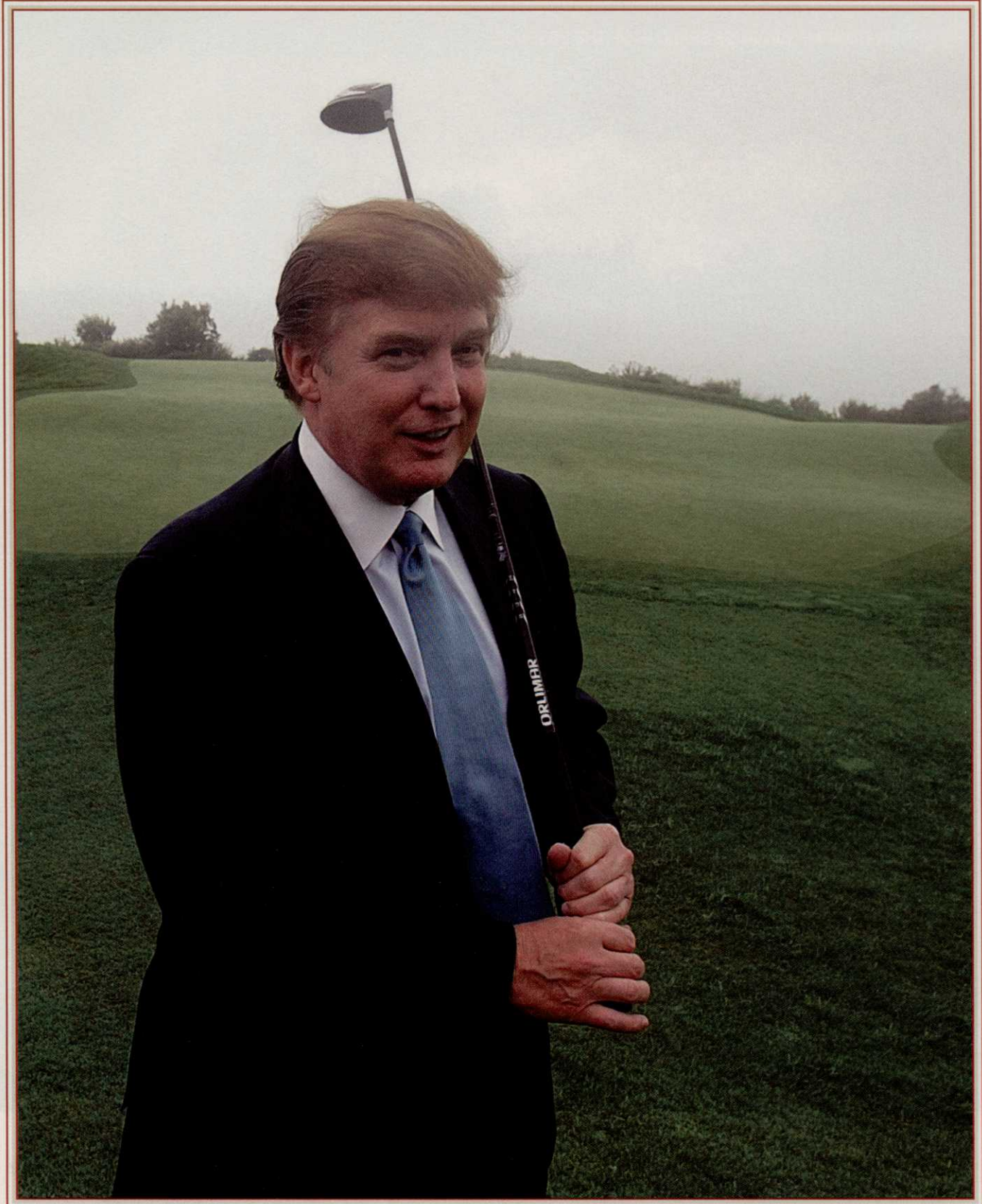


Photo: Associated Press

ON TRUMP'S TURF

A LOOK AT WHY THE DONALD IS
DOING BUSINESS IN THE GOLF INDUSTRY

BY PAT JONES

The romantic notion of owning a golf course has attracted the very rich and very famous for a long time. The very rich include the likes of Blockbuster Video founder Wayne Huizenga (the Floridian Golf & Yacht Club in Palm City). The very famous include Clint Eastwood, who is part-owner of Pebble Beach Golf Links, and Willie Nelson, who owns Pedernales Golf Club in Travis County Texas near Austin. But there's only one golf course owner who is very, very rich and very, very famous. You might have heard of him. His name is Donald J. Trump.

Unless you've been hiding under a rock for many years, you know Donald Trump is building and buying ultra-high-end facilities in our happy little market on a remarkable scale. In just seven years, he's amassed a portfolio that includes three Trump Na-

tional properties (Los Angeles, Bedminster, N.J., and Westchester County, N.Y.), two Trump International facilities (Palm Beach, Fla., and the Grenadines in the Caribbean) and one planned property in Scotland. The Trump Organization has invested \$200 million in the U.S. golf industry.

Reciting Trump's biography is pretty much unnecessary given that he's one of the most recognized people on the planet, but it's sufficient to say he got his start as a New York City real estate developer who diversified into casinos, hotels and pretty much anything that makes money. Oh, and you might know him from his occasional appearances on TV, including his own show, "The Apprentice."

Now, he's investing significant money into golf at a time when many banks and investors are running away from the business.



Donald Trump, who is building a 36-hole golf club in Aberdeen, Scotland, says he made golf a good investment, regardless of market conditions, because he has built the best golf courses in the best locations. Photo: Derek Ironside

Why? What's The Donald's passion for the game like? What's his interest in the business? What's his time on the course like? Trump answered these questions and more in between battling with Rosie O'Donnell, promoting the new season of "The Apprentice" and buying Tokyo (just kidding). Enjoy.

WHY DO YOU LOVE THE GAME?

Golf is a brain game, and it's beautiful on the course. There's nothing not to like about it.

HOW OFTEN DO YOU ACTUALLY GET TO PLAY 18 HOLES WITHOUT BEING INTERRUPTED BY BUSINESS?

It happens occasionally. Because I own the

courses I play, I'm working at the same time because I'm always making improvements as I go along. That way, I get to play more but don't feel guilty.

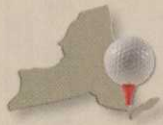
WHAT'S UNIQUE ABOUT EACH OF YOUR GOLF PROPERTIES?

Each one is spectacular for its own reasons, whether be it waterfalls or the ocean.

GOLF IS FLAT, YET TRUMP GOLF IS GROWING. WHY IS THE GOLF MARKET A GOOD INVESTMENT RIGHT NOW?

I made it a good investment because I've built the best courses at the best locations.

WHICH GOLF COURSE DESIGNERS –



Trump National Golf Club Westchester

Location: Briarcliff Manor, N.Y.
Course length: 7,261
Architect: Jim Fazio
General manager: Dan Scavino
Golf course superintendent: Ryan Batz
Golf director: Cary Stephan



Trump International Golf Club at Raffles Resort

Location: Canouan Island, the Grenadines
Course length: 6,500
Architect: Jim Fazio
General manager: Gilbert Madhavan
Golf course superintendent: David Foster
Head golf professional: Simon Blanshard



Trump National Golf Club

Location: Bedminster, N.J.
Course length: 7,560
Architect: Tom Fazio
General manager: David Schutzenhofer
Golf course superintendent: Gregory Nicoll
Head golf professional: Michael Fisher



Trump International Golf Links

Location: Menie Estate, Aberdeen, Scotland
Project director: Neil Hobday
Director of membership, marketing and PR: Lora McCluskey
Development plans: two championship golf courses and a turfgrass research center. The courses will be designed by Donald Trump in association with Tom Fazio and his firm Tom Fazio II LLC. The courses are scheduled to open in the spring of 2008. The cost of the links course is estimated at \$18 million and the entire development at \$500 million.



Trump National Golf Club

Location: Los Angeles
Course length: 7,242
Designer: Donald Trump
Director of golf: Mike van der Goes
Golf course superintendent: Martin Howard
Head golf professional: David Conforti



Trump International Golf Club

Location: West Palm Beach, Fla.
Course length: 7,326
Architect: Jim Fazio
Director of club operations: Bill O'Connor
Golf course superintendent: Andy Kjos
Head golf professional: John Nieporte

THE TRUMP PORTFOLIO

LIVING OR DEAD - ARE YOUR FAVORITES?

The Fazio's are masters at what they do, as are Pete Dye and Rees Jones. I love them all.

IF YOU COULD PICK ANY THREE GOLF COURSES IN THE WORLD TO ACQUIRE TOMORROW, WHICH COURSES WOULD YOU CHOOSE AND WHY?

They would all be unobtainable.

SUPPOSE A FEW OF YOUR APPRENTICES WANTED TO GET INTO THE GOLF BUSINESS. WHAT ADVICE WOULD YOU GIVE THEM?

They should learn everything about golf, from course design to the game itself, and the history of the game from day one. Then I would tell them it is a tough business.

WHAT ARE YOUR STATED EXPECTATIONS FOR THE QUALITY OF THE CONDITIONING AND TURF ON YOUR COURSES?

They've got to be perfect.

TELL US ABOUT THE SCOTTISH DEAL. WHERE DO THINGS STAND?

That's a beautiful project, and it will be sensational. It's historic and innovative, and it will be an international destination for all serious golfers. It's the best piece of land I have ever seen for golf.

GOLF COURSE SUPERINTENDENTS PLAY A HUGE ROLE IN THE SUCCESS OF A COURSE. HOW MUCH HAVE YOU LEARNED ABOUT THEM AND WHAT THEY DO?

I've learned that they have to love the game to be effective. They have to be passionate about their job or it won't work.

WHAT'S NEXT FOR TRUMP GOLF? WHAT'S YOUR ULTIMATE VISION FOR THE COMPANY?

To build and own the greatest golf courses anywhere in the world. My Los Angeles course was just ranked No. 1 in the state of California. Trump Golf is already No. 1 in the country, and it will be No. 1 internationally in a short time. GCI

For more information about Donald Trump's golf courses, visit www.trumpgolf.com.

BY JOHN WALSH

Elevating the profession

Paul R. Latshaw's
influence ripples throughout the industry

He not only set the bar for the superintendent profession, he raised it – several times. For some, he raised it too high. The legendary Paul R. Latshaw, who retired as a golf course superintendent in 2001, remains active in the industry. His influence ripples through the business like a stone skipping across water. An inquisitive and humble man, Latshaw learns from others as much as others learn from him. Presently, he has a consulting business, but he's slowing down and plans to take things easier during the next few years.

During his illustrious 37-year superintendent career, Latshaw worked at some of the most prestigious clubs in America: Augusta National in Georgia; Oakmont Country Club in Pennsylvania; Winged Foot Golf Club in Mamaroneck, N.Y.; Shaker Heights County Club in Ohio;

Congressional County Club in Bethesda, Md.; Wilmington (Del.) County Club; and Riviera Country Club in Pacific Palisades, Calif. His longest job, 11 years, was at Oakmont.

Latshaw, a 41-year member of the Golf Course Superintendents Association of America, is a veteran of hosting major golf tournaments. He has hosted more majors – nine – than any other superintendent: four Masters, one PGA Championship (his first major), two U.S. Opens and two Senior Opens. Two of his loves as a superintendent were hosting tournaments and solving problems.

“I love to push the grass to the peak and provide a challenging test for golfers,” he says. “Every one of the majors we hosted, except one, we reached a higher standard of maintenance than before. It started with the PGA Championship in 1978 at Oakmont in August with great





Latshaw is slowly consulting less and plans to spend more time on his farm in Pennsylvania.
Photo: Marc Longwood

green conditions. The '83 Open at Oakmont had green speeds that were unheard of, and the rough was challenging – it was more than a foot high, which some people thought was unfair, but it was consistent.

“The only event I wasn’t proud of was the ’95 Senior Open at Congressional because we had average playing conditions,” he adds. “The membership was proud of the accomplishments, but conditions were mediocre for a champion-

ship. After that, I decided to change my method of fertilization to foliar feeding. The '97 Open at Congressional was my proudest because it was the best-conditioned golf course I ever produced and I was fortunate to have the best staff in my entire career.”

Of all the majors Latshaw hosted, the Senior Open at Riviera in 1998 was the biggest challenge for him because he was still working at Congressional.

A model for others

During his career, Paul R. Latshaw positively affected many superintendents professionally. Although he’s now retired, his influence is still felt by many. Eric Greytok, former golf course superintendent at Winged Foot in Mamaroneck, N.Y.; Matt Shaffer, director of golf course operations at Merion Golf Club in Ardmore, Pa.; Mark Michaud, golf course superintendent at Shinnecock Hills Golf Club in Southampton N.Y.; and Jon Jennings, CGCS at the Chicago Golf Club are a few who worked for or with Latshaw.

Greytok worked as an assistant for Latshaw at Congressional and Riviera in 1998 and 1999 and always believed Latshaw taught him about the business side of the job.

“He was demanding of his employees, was a good leader and always challenged you,” he says. “But I never had any doubts about working for him.”

Greytok was aware of Latshaw’s stature before working for him.

“You worked hard to be in a position to be his assistant and learned why he was so successful,” he says. “You knew what you were getting into and knew about the time commitment. If you were honest with yourself, there were no surprises. He had a great outlook: work hard, play hard. He said at the end of the day that it’s just grass, but he always took his job seriously. He stressed not taking the easy way out and doing things the right way, which was the hard way.”

Greytok makes a habit of talking to Latshaw about every other month, but it’s more of a “Hey, how are you doing” type of conversation. However, he still calls Latshaw for advice. For example, Greytok says it was great having him at Winged Foot before the 2006 U.S. Open to give him a laundry list of things he missed.

“He volunteered his time, and I’m grateful for that,” he says.

Latshaw always has raised the bar for other superintendents.

“No’ was never an option, and second best was never an option,” Greytok says. “It always

got done. He has high expectations and brings that to the course everyday. He was always willing to try new things and solutions for problems. People respect him for that.”

Latshaw is still influential, if not more so now because he travels the country and the world, Greytok says.

“He was a good teacher and taught a lot of people in turf, and a lot of people sought him out to learn from him,” he says. “He always had fun at the end of the day. I had a good all-around experience working for him.”

Shaffer, too, worked as an assistant under Latshaw. He was at Augusta National for three years, though he wasn’t a typical assistant. He had been in the industry for 15 years and was 33 years old at the time.

“I couldn’t get into a big club, so I needed to do something dramatic,” Shaffer says. “I got lucky. Most guys were younger. I wanted Augusta National and his name on my resume.”

While Shaffer was at Augusta, he interviewed for the superintendent position at Burning Tree Club in Bethesda, Md.

tools in his bag. Championship golf has to be taught. It’s not learned, and you have to work with somebody who has a good recipe.

“Everyone has trouble growing grass,” he adds. “But you need to extricate yourself from the problem. Don’t overreact or hit the panic button. Sometimes when things go bad you have to go back to the basics.”

Shaffer says it’s amazing Latshaw is still there to help superintendents. He says that if he never sees you, you’re doing good, but if he sees you, you’re in trouble.

“He came for the U.S. Amateur (at Merion) last year and helped out,” he says. “High heat and rain created problems for the turf. We ended up smelling like a rose because we got into a heavy aeration program, seeding and germinating fairways. He told me to back off the grass.”

When Michaud was a superintendent at Pebble Beach in California earlier in his career, he volunteered to help Latshaw prep Congressional for the '97 U.S. Open.

“I volunteered at that one specifically to watch the master run a tournament,” Michaud

“He was always willing to try new things and solutions for problems. People respect him for that.” - ERIC GREY TOK

“I turned it down because I felt I didn’t know enough,” he says. “I was a sandwich chef before Augusta, and when I left, I was an executive chef. Before, I didn’t know how to put icing on the cake. It’s a total different mindset at the top of the profession.”

Latshaw helped Shaffer deal with job stress.

“The pressure is more significant at those high-end jobs,” he says. “He taught me how to balance stress, work and home life under adverse conditions. He’s unbelievable. He has so many

says. “Paul has tremendous organizational skills. There were about 70 volunteers. It was a perfectly run event. We walk-mowed the fairways. He’s famous for going where no other superintendent has gone before. His skills as a superintendent are unsurpassed with his history of hosting championships. I don’t think you’ll see anybody match that.

“You can maintain a golf course only so many ways, so I observed him on how to handle pressure and his staff. He finds what a person is



Those who've worked with or for Latshaw were impressed with the way he handled himself in high-pressure situations and his willingness to try new things.
Photo: Marc Longwood

really good at and uses that to his advantage and develops their weaknesses.”

Like Michaud, Jennings helped Latshaw prep a course for a major, the Ocean Forest Golf Club in Seas Island, Ga., for the 2001 Walker Cup. Jennings has known Latshaw for a number of years and considers him a mentor.

“He has led the industry by example and has set goals for other superintendents to meet,” he says.

Connections

Latshaw’s influence has helped place many superintendents in the field.

“Clubs don’t want to look at 100 resumes, they want to look at 20 or 30,” Michaud says. “He cuts the fat. He knows where everybody is and their successes and failures. He recommends five or 10 guys and lets the club take it from there. These guys go to work at the tournaments to get a recommendation from somebody. It’s not a cake walk. You’re working 15 to 20 hours a day busting your butt. Additionally, many of these guys are on their cell phones making sure their own courses are being run properly. The guys who say it’s unfair are whiners and need to set themselves apart from 75 percent of the resumes by taking that extra step.”

Greytok doesn’t believe he had an edge over other superintendents because he worked for Latshaw, but he felt fortunate to work for him. Using the Latshaw name as a reference helped him advance his career.

“Both Latshaws (Paul R. and son Paul B.) were instrumental in me going from an assistant superintendent to a superintendent because they taught you the drive to succeed,” he says.

When superintendents who’ve worked for Latshaw see job opportunities, they call him for advice.

“Putting his name on a resume breaks down some doors, but he doesn’t do that for just anyone,” Shaffer says. “He has to know these guys. He always gets them the interview but left it up to them to get the job. Is it fair? No. But you have to play the game. Working for him changed my life.”

Personality

Jennings recalls the first time he met Latshaw – at a GCSAA educational seminar about fertility. Latshaw was at Congressional at the time, and Jennings talked to him about the bentgrass conversion he did.

“Here was someone who hosted the Masters

and other major tournaments and offered information to someone he didn’t know,” he says. “What inspires me is how he is driven, but he keeps it in a light manner. He has a neat presence while working along side him. When you talk to him, there’s no one else who he’s focused on. He makes you feel important. The most important thing about him is his personality and drive for perfection.”

The minute you get next to him, you have a deep respect for him, Michaud says.

“He’s a very humble person,” he says. “You’ll never hear him brag.”

Shaffer and Michaud say Latshaw is inquisitive, and if he hears you’re doing something new and different, he’ll ask you about it.

“The first time I rode with him around the golf course at Pebble Beach, he asked me more than a hundred question, and later that night when we were having dinner, I realized I didn’t learn anything from one of the greatest golf course superintendents in the world,” Michaud says.

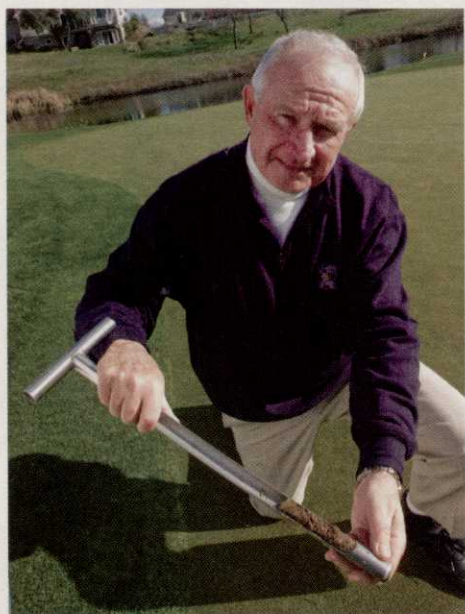
“What still impresses me about him is he never acts like he’s arrived,” Shaffer says. “He listens to everybody. It’s never gone to his head. He’s a very modest person, and that speaks volumes.” GCI

SUPERINTENDENT PROFILE

"Riviera contacted me, but I couldn't go out there because I was under contract at Congressional," he says. "But they gave me a sabbatical that allowed me to prep Riviera. So I flew across the country every week for six months to prep the course."

Latshaw never lived in California while prepping Riviera. He stayed in the clubhouse. While he was on the West Coast, Rick Shriver and, later, Eric Greytok, took over at Congressional. This was an unusual situation that would be difficult to pull off even now.

"That was my salesmanship," he says. "That took a few board meetings to get done. I think Congressional liked it because it was their



superintendent preparing another course for a major."

At Riviera, Latshaw credits a few strong people, including Steve Thomas, Greytok and 12 interns, for a successful tournament preparation.

"I had great support," he says.

THE CONSULTING BUSINESS

After retiring and leaving Winged Foot in 2001, Latshaw worked for Signature Controls and then started a partnership with Advanced Aer Systems. He worked for both companies at the same time, part time, while consulting. He did that for two years before easing out of working with Signature and Advanced Aer to work as a consultant full time. Latshaw says he worked for Signature because it came out with a new irrigation control system he believed had a strong future.

"I always believed in new technology," he says. "Signature had it, and Advanced Aer was getting it. But I'm more about the concept than the product."

Some might have seen a conflict of interest when Latshaw worked for Signature and Advanced Aer while working as a consultant. However, Latshaw says he tries to be fair and open.

"A consultant shouldn't be selling for somebody or pushing a product," he says. "But if I see a situation in which I used a product in the

Latshaw has been involved with Brookside Laboratories and its soil and water testing. Photo: Marc Longwood

past that works well, I won't hesitate to recommend it."

Throughout the years, Latshaw helped integrate new products into the market, including the laser leveling process used for building tees, the barrier used around greens to keep Bermudagrass from encroaching, subsurface aeration and video training tapes.

Latshaw is no stranger to visiting various golf courses throughout the country. At one point, he had about 60 clients, so he visited those clubs in addition to those with superintendents who had previously worked for or with him. During the summer when he's busiest, he visits three or four courses a week. In 2006, he logged 170,000 air miles alone.

"I kept U.S. Airways in business," he says jokingly.

Latshaw doesn't conduct half-day visits and usually spends one full day with a client. Sometimes he spends more than a day with a client if he feels the need. The cost for his visits varies from client to client, and the cost of his travel is built in to his fee.

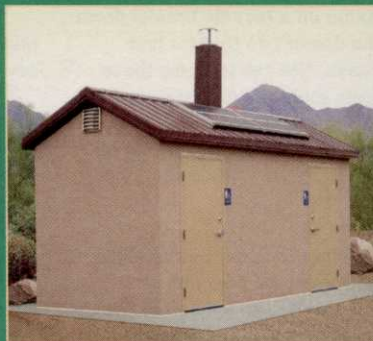
Latshaw isn't taking on any more clients and will ease out of his consulting business starting next year, but he'll keep working in other ways.

"I'll be involved in tournament prep, mostly with PGA Tour events," he says.

Also, Latshaw has been involved with New Knoxville, Ohio-based Brookside Laboratories and its soil and water testing. Latshaw says he'll continue to be involved at courses where his former employees are superintendents.

"I'll be involved with them until they get tired of me," he says.

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With another so-called retirement on the horizon, Latshaw has started to phase out his overseas travel. He used to go to Europe regularly and had clients in Asia and the Caribbean, but now he just has one account in England and one in Mexico.

"Travel is more difficult than it used to be," he says.

Like the superintendent profession, consulting has its pros and cons. One of Latshaw's biggest frustrations is when clients ask him to help solve a problem and he lays out an agronomic program they don't follow through with because of cost or board/committee approval. So when he goes back to the course, it's not what he expects to see. For example, tree removal is a controversial topic because many people can't see how a tree is the cause of a green's downfall.

A positive aspect about the consulting business is the improvements and changes Latshaw sees as a result of his suggestions.

"I enjoy what I do," he says. "It's a great profession. It's great to see all of the dedicated people in this profession. People in this industry are really enthusiastic about their jobs. You're always working with good people, and you make a lot of friends. Once it's in your system, it's hard to get out."

Now that Latshaw slowly will consult less, he'll spend more time on his farm in Pennsylvania. He's interested in alternative and organic food sources and different composts and teas for use on farms.

"More and more, people are realizing our food can be better," he says.

INFLUENCE AND SUCCESS

Latshaw's clout is recognized throughout the industry. If you're a superintendent who has him as a reference on your resume, you're often a step or two ahead of the rest when it comes to

(continued on page 119)

More about the man

A few questions for Paul R. Latshaw

Q: What is something most people don't know about you?

I'm a religious person.

Q: After more than 30 years of seeing hundreds of golf courses, what strikes you the most?

I've never seen a golf course that didn't interest me.

Q: What are your thoughts about your son? (Paul B. is a golf course superintendent at Muirfield Village Golf Club in Columbus, Ohio.)

He has done a great job. He is a leader in the industry, and I'm very proud of him.



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Crystal Springs Golf Course in California features wildlife corridors, some where deer roam. Photos: Crystal Springs Golf Course

On The GREEN^{ER} Side

By John Torsiello

Environmental areas reduce labor, inputs and impact on surroundings

Patrick Blum, golf course superintendent at Colonial Acres Golf Course in Glenmont, N.Y., enjoys sitting with his daughter Samantha and young son Zachary and looking out over environmental areas that exist in harmony with the maintained areas of the nine-hole layout he manages.

What they see are various bird species and an occasional fox or deer rambling about in the tall grass or brush. The scene brings a smile to a father's face.

"When my daughter was born in 1995, I determined that I was going to make a difference environmentally," says Blum, whose course has won a number of Audubon and Federal Environmental Protection Agency awards for its environmentally friendly turf maintenance. "I was involved in the



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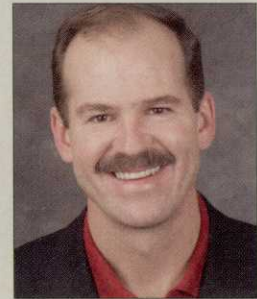
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Great blue heron can enjoy about 45 unmaintained acres on the property of the Crystal Springs Golf Course. Golf course superintendent Tim Powers and his crew maintain about 75 of the 120 acres on property. Photo: Crystal Springs Golf Course

Stone Creek Golf Club (opposite page) in Oregon was routed around wetlands and features seven acres of environmental areas, some of which are used for wildlife corridors. Photo: Stone Creek Golf Club

landscape business before I came here in 1994, and it was the right thing to do to take the golf course toward harmony with its natural surroundings.”

About half of the 33 acres at Colonial Acres are considered environmental areas or buffer zones. Blum has reduced his use of synthetic pesticides and fertilizers from 3,500 pounds a year when he took over the superintendent position to 445 pounds a year. His ratio of bio and organic to synthetic pesticides and fertilizer use is about 3-to-1.

Blum established environmental areas throughout Colonial Acres, creating wildlife habitats, areas of prairie grasses and deciduous and conifer trees, as well as wildlife corridors through which animals can move from one end of the course to the other without crossing the maintained areas of the course. The results have been significant.

“We now have about 32 different bird species, where we once had maybe a dozen,” Blum

says. “And between animals and mammals, we have about 15 species.”

Colonial Acres is designated as a Certified Audubon Cooperative Sanctuary by Audubon International and is the first golf course in the country to meet the EPA’s strict environmental performance tracking standards for a business enterprise, Blum says.

Environmental buffer zones, or natural areas, provide environmental insurance between areas where golf courses are more intensively managed and areas of environmental concern, such as wetlands and ponds, says Ron Dodson, founder, president and c.e.o. of Audubon International.

“These areas can be ‘rough’ or native vegetation areas where little to no chemical products are used and that provide runoff water a chance to filter through vegetation areas,” Dodson says. “They give course management an additional and visible opportunity to protect the environment.”

Crystal Springs Golf Course in Burlingame, Calif., has been Audubon certified since 1998 and also has won numerous awards for its environmental protection measures from the Golf Course Superintendents Association of America. Creating environmental buffer zones is important at Crystal Springs because the course is located close to a 32,000-acre watershed.

“We have wildlife corridors, and we leave areas in front of the tee boxes natural up to about 70 yards out,” says golf course superintendent Tim Powers. “We have about 120 acres in all, and we probably maintain about 75. We don’t do anything around the edges of the course. We don’t use nitrates and mostly use bios or organics when we treat the maintained areas

of the course.”

Stone Creek Golf Club in Oregon City, Ore., also is at the forefront of the golf industry’s environmental movement.

“There was some mitigation of the property when the course was built in 2002, mainly due to infractions by previous owners,” says golf course superintendent Dave Phipps. “We routed the course around the wetlands and placed tee areas to prevent cuts and fills. We ended up with seven acres total of environmental areas or zones on the golf course. Some of that is for wildlife corridors.”

One of Phipps’ main challenges has been to control reed canary grass that’s extremely invasive in natural areas off Stone Creek’s fairways.

“It’s a lofty goal because it probably has been on the site for 50 years,” he says. “The best way to deal with it is excavate five feet and make the soil sterile, but we can’t afford the time. What we have done is establish a secondary story of live oaks, dogwoods and willows to rob the ground of nutrients. We are committed to maintaining the wetlands of the area beyond our permit. We don’t want a huge monoculture like reed canary grass that outcompetes everything else.”

Incorporating buffer zones into the design of a golf course helps superintendents meet demands by governmental agencies concerning the quality of water running off the course into fragile wetlands or drinking water supplies. Two-thirds of the property the Red Tail Golf Club in Devens, Mass., sits on is considered Zone Two by the Massachusetts Water Resources Authority.

“That means we’re within 500 feet of a recharge well for drinking water,” says golf course superintendent Drew Cummins. “One of the





A community college near Stone Creek Golf Club offered a class project that involved plantings in the wetlands next to the golf course. Photo: Stone Creek Golf Club

pluses we had when the course was designed was that we were able to stay away from the wetlands, stay on the high ridges and out of the low areas, and create buffer zones. We wanted to leave as small a footprint as possible on the environment.”

Many of the areas off the fairways remain natural, Cummins says.

“We have done other things such as not having too many paved surfaces like cart paths that allow rain water and runoff to drain into the ground and not travel great distances to fragile areas,” he says.

MANAGING THE AREAS

Careful planning of where to place environmental buffer zones can lead to a better overall management plan and reduce maintenance. And often, environmental zones are connected to how the course is designed in the first place.

“Often, steep banks are not only hard to maintain but dangerous to maintain,” Dodson says. “These areas are perfect for creating buffer zones.”

And having the environmental or natural ar-

reas doesn’t add any man hours, Powers says.

“We cut one area of high grass occasionally near our sixth hole, which has grass that grows high and blocks the view of the fairway from the tee,” he says.

At Stone Creek, there’s one par 3 that has a 140-yard carry over a natural area.

“We don’t do anything with it except occasionally go in and prune or remove small trees,” Phipps says. “There really isn’t any work to the environmental areas, but there’s work around them to make sure the natural areas don’t encroach on the fairways and green complexes.”

At the Lake of Isles Golf Club in North Stonington, Conn., there are 25 monitoring wells installed around the property so the maintenance staff can test and keep tabs on ground water flowing into the lakes and wetlands. The staff checks them three times a year.

“This will be our fifth grow-in season, and we have never had any test come back above the threshold level,” says Curtis Tyrrell, golf course superintendent of two courses at the club. “Obviously, we are doing something right.”

At Stone Creek, there are five test wells on

the property that are tested regularly.

“We have never had any groundwater contamination that would affect the nearby wetlands show up,” Phipps says.

IMPACT ON GOLFERS

Having environmental buffer zones often changes the character of a golf course and places demands on golfers, especially when the areas must be crossed near tee boxes or on approach shots to greens. Some buffer zones will change the look and play of the course, Dodson says.

“Some golfers might think an area has just been forgotten about, but the zones can actually add to the challenge of the game,” he says. “For these zones to work, communication up front is the key.”

Tyrell, whose two courses contain numerous environmental areas, agrees communication is vital to ensuring golfers accept the restrictions posed by natural areas.

“We get a lot of positive feedback about how natural our site is,” he says. “We have all the areas well marked, and the environmentally sensitive areas are marked with a stake that has a green top (the universal symbol for such an area). We have the areas noted on all our scorecards and yardage books. The starter incorporates the information about the environmental areas in his presentation on the first tee.”

But at Crystal Springs, not all golfer feedback is positive.

“We catch a little grief from members who lose golf balls, but most think the environmental areas only enhance the looks of the course,” Powers says.

At Colonial Acres, Blum devised a unique method to keep golfers out of environmental buffer zones.

“We have about two acres of naturalized area that come into play,” he says. “We don’t want golfers in there, so we have a local rule that allows them a drop with no penalty. If a golfer comes in and had a particularly rough day with lost balls, we’ll give him or her a sleeve. It seems to work. We go in there every five years to keep the woods out, and we find a ton of balls that

we sell as used.”

Modern courses usually are designed with large fairways that minimize a golfer’s need to swerve off into sensitive areas in search of lost golf balls.

“Our environmental areas are pretty much outside the playing surface,” Cummins says. “The fairways are large, and we let some of the rough near the fairway grow to stop balls from going into the environmental areas and wetlands off the fairways.”

PROMOTING GREEN

Establishing environmental areas on or near a golf course might make perfect sense to a golf course superintendent, but owners and golfers need to see the benefits as well. For example, making changes to protect the environment at

Colonial Acres took a bit of convincing.

“The youngest owner is in his 70s, so I had to convince them I was creating these areas not so much for them or even their children but for their grandchildren,” Blum says. “Once I came at them from that angle, it took all of 15 seconds for them to say, ‘Go ahead and create the natural areas.’”

Clubs with Audubon certification often use the designation as a marketing tool to members, daily-fee players and the community in general, which can help change the public’s perception of a golf course.

“We’ve got signs up in front of the pro shop about the awards we’ve won, and we have our environmental leadership awards displayed in the clubhouse,” Powers says.

“One of our guys went to speak to a local

garden club and the ladies loved listening to all that we have done here,” he adds. “They really didn’t have any idea of how environmentally conscious we are and how little impact we have on the area. They always had looked at our course as a negative.”

Colonial Acres has become sort of a superman of environmental causes, so there’s more pressure on Blum and his staff now, and they can’t slip up, he says.

“I accept the attention and monitoring because my goal is to leave the least amount of environmental impact as possible on the earth,” he says. **GCI**

John Torsiello is a freelance writer based in Torrington, Conn. He can be reached at jtorsiello@sbcglobal.net.



Two-thirds of the property Red Tail Golf Club sits on is considered Zone Two by the Massachusetts Water Resources Authority. That means the course is within 500 feet of a recharged well for drinking water. Photo: Red Tail Golf Club



On The **BLOCK**

What to consider when forming a sales strategy when your golf facility is up for sale

Everyone understands the golf industry is changing. Fewer courses are being built, and competition is stiffer than ever. Looking at the big picture is easy, but it's harder when the reality that "we're being sold" hits home. Questions from many people about a sale are inevitable. Implementing an effective sales strategy while keeping a course appealing and operating efficiently requires careful planning, solid management and clear, consistent communication.

The National Golf Course Owners Association's The Golf Course Market Web site, presented in conjunction with PricewaterhouseCoopers and Hilda W. Allen Real Estate, provides details about what owners and managers should consider and prepare for when it comes to selling property. The Web site, which provides comparative values, also lists courses for sale. Brokerage firms, commercial real estate companies and various consulting firms

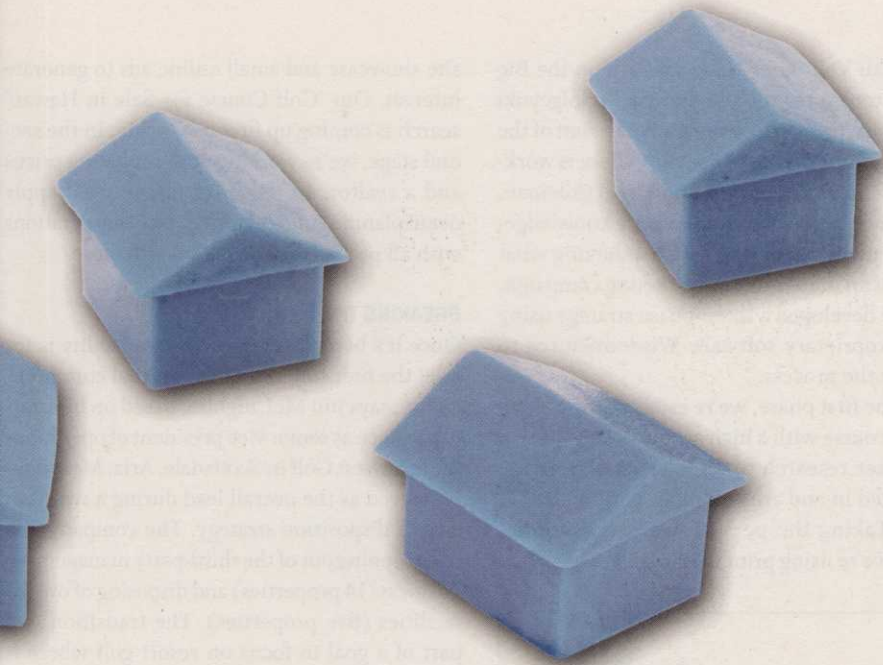
provide similar services regionally, nationally or internationally.

Course type might dictate the sales strategy, says Jeff Davis, president of Dallas-based Fairway Advisors, a boutique brokerage firm specializing in golf course sales throughout the United States. It also provides consulting services about the sales process.

"Many private courses are very reluctant to openly publicize news of the golf course being on the market," Davis says. "That often restricts sales potential to the national management companies, which are more aware of the risks, and thus, generally more financially conservative. Most courses want the highest price in the shortest time. However, daily-fee courses are more likely to want to publicize the sale to create a wider range of potential purchasers."

A sales strategy needs to match the owner's expectations. Lynn Lincecum, one of three owners of Frenchman's Bend Country Club in

BY STEVE AND SUZ TRUSTY



The owner of the Volcano Golf and Country Club in Hawaii is working with a consulting firm that implemented a three-phase strategy being used to sell the property. Photo: Wisdom Source Technologies

Monroe, La., serves as president and spokesman for the ownership group. It has listed the club with the National Golf Course Sales Division of Coldwell Banker Commercial headquartered in Jacksonville, Fla. Coldwell Banker helped prepare the sales package and gave the club a high-profile international listing that includes placement on its Web site.

"The broad exposure is important for us, but just as important is the connection with a local agent who knows us, the course and the community," Lincecum says. "We communicate with him directly when we want something done, and he's the one who will work with prospective buyers when they come on site."

The owner of Volcano Golf and Country Club, an 18-hole semiprivate course adjacent

to Hawaii Volcanoes National Park on the Big Island, took a big-picture approach. Shigeyuki Tachibana, principle owner and president of the Hawaiian International Sporting Club, is working with Steven Mosciatti and David Coleman, two principals of WisdomSource, a knowledge-management consulting firm conducting what they call an underground marketing campaign.

They've developed a three-phase strategy using their proprietary software WisdomSource to manage the process.

"In the first phase, we're establishing a value for the course with a high asking price – a form of market research to show what buyers are interested in and are willing to pay," Coleman says. "Taking the perspective of a potential buyer, we're using print media, a detailed Web-

site showcase and small online ads to generate interest. Our 'Golf Course for Sale in Hawaii' search is coming up first on Google. In the second stage, we're working with set listing prices and a realtor. In the third phase, we'll apply detail planning and management of expectations with all parties to assure a smooth close."

BREAKING THE NEWS

Once it's been determined that a facility is for sale, the first step might be internal communication, says Jim McLaughlin, based on his prior experience as senior vice president of operations for Intrawest Golf in Scottsdale, Ariz. McLaughlin served as the overall lead during a two-year course disposition strategy. The company was transitioning out of the third-party management business (14 properties) and disposing of owned facilities (five properties). The transition was part of a goal to focus on resort golf where it owned lodging and golf properties (15). During the process, the company was sold to a large equity firm in late 2006.

"News of the Intrawest disposition set off alarm bells throughout its portfolio of 34 courses," says McLaughlin, who accepted the position of vice president of operations for Scottsdale, Ariz.-based Troon Golf in January. "Communication was the key to making the process move smoothly for all the stakeholders – the members and playing public, employees, suppliers and communities where the courses were located."

The first step was notifying the courses that weren't targeted for sale.

"For the three courses sold during that time, the next step was meeting with the general managers and teams on the property to deliver the initial message and assure them we would maintain open communications all through the process," McLaughlin says. "In each case, sticking to that was extremely beneficial to everyone involved."

Davis also recommends full disclosure, explaining what sales process is planned, what the time period is and what to expect.

"Most employees, if their job is necessary and they're doing it well, have nothing to worry about," he says. "With a private club, informing the members will be appreciated and might head off a mass exodus. Some of the members might even be potential buyers."

For the fast-growing and close community



Owners of properties for sale should consider what buyers will want to know and be willing to provide them that specific information, says Jeff Davis of Fairway Advisors, which worked with the owners of The Links at Challedon Club in Mount Airy, Md. Photo: Mike Henry



around Frenchman's Bend, open communication is essential to the process, Lincecum says. Its ownership group had evolved to take over the course about four years after it opened because it hadn't kept up with the level of investments people were making in their homes.

"We invested in the course, made some major improvements and moved the bar up a notch or two," he says. "But we don't have the capital, resources or expertise to take the course where it really needs to go, and we've been very open and upfront about that."

Owners of properties for sale should consider what buyers will want to know and be willing to provide them that specific information, Davis says. For example, if the property will remain a golf course under new ownership because of land-use restrictions or other regulations, the owner should say so. If the property could be considered for redevelopment or adaptive reuse, those possibilities should be addressed.

If the bylaws of a private club dictate a percentage of member approval on the sale or if members are given the right of first refusal, owners should be clear about it and establish guidelines to work through whatever processes will be required.

It's essential to present this type of information in a format that will attract attention, Mosciatti says.

"By doing so, the majority of employees, members or players, and the community will come to support the sale as an opportunity to improve the facility, increase property values and raise salaries," he says.

Additional incentives can help, too.

"Tachibana plans to donate a percentage of the proceeds from the sale of the course to the World Learning Forum, a local 501(c)3 charitable organization," Coleman says. "That information increased visibility internationally and gained additional community support."

Shigeyuki Tachibana, owner of Volcano Golf and Country Club, plans to donate a percentage of the proceeds from the sale of the club to the World Learning Forum, a local 501(c)3 charitable organization. Photo: Wisdom Source Technologies

SET THE STAGE

Course and facility maintenance during this period should be even better than business as usual because managers are setting the stage for potential buyers. Owners and managers should walk the course with their agent or consultant to note areas that need be cleaned up, refurbished or repainted. For example, it's a good idea to replace weathered signage, prune trees and shrubs, spruce up flowerbeds, and keep fairways, tees and greens in pristine condition.

Sellers should be aware that some potential buyers might play the course, take a lesson or two, shop the clubhouse, eat at the restaurant, and even book a small event to assess conditions and the competency of the staff before officially expressing interest.

Sellers shouldn't cut back on operational expenses to inflate the bottom line, Davis says. Astute buyers will notice the reduction when comparing financial information and seek to

adjust the price to compensate for deferred maintenance.

Most likely, the majority of employees will want to stay and work at the course under new ownership. Managers should encourage them to maintain a high level of performance so there's no reason for the new owner to replace them. It would be difficult to lose a key individual during the sales process, especially a strong general manager, McLaughlin says.

"Be prepared to offer incentives for them to stay if their expertise warrants it," he says. "But don't attempt to keep someone who won't be completely supportive. Key managers set the tone that determines the attitude of their staff."

Progress shouldn't be halted either, Lincecum says.

"We've made arrangements with a very popular upscale local restaurant to take over all of our food-and-beverage service," he says. "They were

considering a second site in our area, so it's an excellent match."

Lincecum is bringing in a new general manager at Frenchman's Bend. The g.m. ownership is hiring has course management and marketing experience and is a PGA pro.

"He's not a golf course superintendent, but he knows what he wants to achieve on the course," he says. "We've explained to our current grounds staff that he will have the responsibility and authority to make changes, but that he's informed us he will retain and support all that are willing to work, and to learn, if necessary, to meet his standards. Both these changes will enhance the course whether we find a buyer or retain ownership."

As the sales process progresses, owners need to weigh the pros and cons of personnel changes.


"The golf course superintendent at one of the courses accepted an excellent opportunity at another course about a month before our

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Jeff Davis of Fairway Advisors, which has worked with Glade Valley Golf Club in Walkersville, Md., recommends full disclosure, explaining what sales process is planned, what the time period is and what to expect. Photo: Mike Henry

MANAGING THE PROCESS

final closing," McLoughlin says. "With such a short interval, we didn't try to replace him. The existing team was able to pull together to keep everything up to standards until the new owner was able to hire another superintendent."

MANAGING THE PROCESS

A well-designed sales package will include all the materials a buyer would need to see for due diligence. Brokers and owners agree the scope of this information is so broad only prequalified potential purchasers should be allowed access to it. Internet-based forms to help qualify interested

buyers and password protected sales data Web sites are quickening this process. McLaughlin recommends setting up a neutral site when face-to-face meetings are required in the preliminary stages of the sales process.

"Official on-site visits must be handled well to avoid disruption for the course management team, the membership and other course users," he says.

Sellers also should communicate more as they move closer to the sale.

"Our full-time disposition person, the course general manager and I interacted by e-mail,

phone or in person to keep two-way communications open," McLoughlin says. "The general manager conveyed the information to the staff and members."

A broker, real estate agent or consultant can play a key role in the process.

"It's important to have someone that remains a third party during these transactions," Davis says. "If something gets contentious, that individual might be able to bring the parties back together to work through the negotiations."

As with most projects, staying focused on the goal is important.

"It's not just finding a buyer, it's finding the right buyer," Coleman says. "The entire process must lead to that conclusion to be successful."

GCI

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

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Short-throw irrigation provides precise water control, allowing superintendents to manage water more efficiently

BY DAVID WOLFF

You know that bunker that's always getting wet, or that tree branch that's constantly in the way. Well, bunker faces, berms and mounds, tree lines and low branches all create obstacles that prevent you from putting water precisely where they want it. And you know how critical water management is. Reliable flow control and precise water placement are vital to meeting the challenging demands of maintaining quality turf conditions on golf courses.

But don't fret.

Irrigation systems with flexible, short-throw capabilities allow golf course superintendents to adjust main nozzle trajectory from the top of the sprinkler and fine-tune spray height. Spray pattern distribution is related directly to nozzles. For example, watering hot spots is easier than before because of these newer irrigation systems. Forget about dragging out a hose and finding a quick coupler. Just set the arc to a narrow 40 degrees, or manually direct and hold the sprinkler to place the exact amount of water precisely where you want.

Also, consider the areas behind part-circle sprinklers that brown-out during the summer. Manufacturers offer an assortment of back nozzles that water directly behind a sprinkler. Short-radius applications such as tee boxes are no longer a problem. Simply plug in the main nozzle and provide coverage as short as 18 feet.

Most short-throw sprinkler heads can compensate for windy conditions, too.

Irrigation systems with flexible, short-throw capabilities allow superintendents to adjust main nozzle trajectory from the top of the sprinkler and fine-tune spray height. Photo: Rain Bird





On the
mark



Many golf courses have small areas or areas next to nonirrigated areas that need to be watered precisely without wasting water. Photo: Rain Bird

DEDICATED, DURABLE SYSTEMS

Before the two largest manufacturers of golf course irrigation systems, The Toro Co. in Riverside, Calif., and Rain Bird Corp. in Tucson, Ariz., introduced short-throw products, superintendents relied on commercial-grade rotors. However, they eventually cracked under the higher pressure of golf course irrigation systems. Products from Toro and Rain Bird are designed to handle pressure fluctuations and be durable. They provide more efficient, precise and uniform

water distribution. Features of these flexible irrigation systems include:

- Radius throw versatility, from 18 feet to 55 feet, to irrigate tight areas. Spray height can be adjusted from 7 to 30 degrees with Toro products.
- The ability to withstand golf course irrigation system water pressure, operating from 60 psi to 90 psi with the ability to sustain as much as 100 psi.
- Back nozzle capability that provides irrigation flexibility when a consistent full-circle pat-

tern won't do. Superintendents can experiment with this capability when they need to water native plant ornamentals near the edge of the course. They can try this when irrigation needs require a different throw range or water output. They can use a back nozzle in windy conditions to help gain better trajectory behind the head and to have better overall coverage.

• The ability to spray part-circle or full-circle patterns with the same head on the new 835S/855S Toro sprinklers. The part-circle feature is used in drought-sensitive areas to reduce watering roughs temporarily. Superintendents can experiment with full-circle coverage during grow-ins when adjacent native vegetation needs consistent moisture to establish.

Recent improvements of sprinkler throw flexibility bring together two areas of irrigation need for golf course superintendents, says Steve Snow, director of sales for Toro.

"In a single system, the superintendent can water entire fairways and greens, as well as those small, tough-to-water areas such as bunker tongues, tee boxes that are half in the shade and half in the sun, and that 20-foot area between the green and cart path. The heads can be tailored to the application."

MEETING DIFFERENT NEEDS

The ability to adjust sprinklers is important in many ways, says Mike Hurdzan, Ph.D., president of Hurdzan-Fry Golf Course Design in Columbus, Ohio. It has designed more than 250 golf courses in the United States, Canada and abroad.

"When you put five or six sprinkler heads around a green, there will be prevailing winds, high areas, low areas and trees," he says. "There is always some obstacle we need to work around to get the most even distribution of water on a green. Before, with a fixed-angle nozzle, we were really limited."

Short-throw irrigation is a one-size-fits-all product, says Erik Christiansen, president of EC Design Group, an irrigation consulting company in West Des Moines, Iowa.

"In a hard-line system where you have native vegetation that actually backs right up to mowed, manicured turf, you need sprinkler heads that go away from the native grasses," he says. "But let's say you're in a drought situation where even your native grasses are struggling. Well, don't worry about it. Now just take that part-circle head and adjust it back to include the native grasses so you

don't start losing it. Then, when you're finished, turn it back in again. You don't need to change out drives or hand water with a hose. Short-throw irrigation capability is effective."

Many states have severe water restrictions

because of drought, and during these times, golf courses are required to stop irrigating roughs first. But if superintendents have full-circle heads that throw water in the rough, there's not much they can do about it. With a part-circle head, the super-



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intendent can turn off irrigation to the rough.

Additionally, new golf construction requires different irrigation compared to existing golf courses.

“For the grow-in of a golf course, we want a really wide distribution to get things up and running,” Hurdzan says. “But then, particularly with the environmental courses, there are areas we don’t want to water, so these native grasses go into a more natural drought-like condition. Now we can adjust that fullness of the circle to allow for that pattern.”

CONSERVING WATER

Many golf courses have small areas or areas next to nonirrigated areas that need to be watered

Sensitivity to land movement requires water to stay strictly confined to turfgrass areas at The Mountain Golf Course in Colorado. Photo: Toro

precisely without wasting water. Copper Canyon Golf Club in Phoenix, The Mountain Golf Course at The Broadmoor in Colorado Springs, Colo., and Olde Florida Golf Club in Naples, Fla., are examples of courses that rely on short-throw irrigation for efficient water management.

Scott McCall, golf course superintendent at 18-hole Copper Canyon, has been using short-throw irrigation for several years. But he needed a more durable system, so he switched to Rain Bird’s Eagle 351B rotor.

“The other system we were using was constantly breaking down,” McCall says. “Even though it was under warranty, my irrigation technician’s time was not. Durability was the biggest issue for us. We couldn’t have him sitting around waiting for replacement parts.”

Copper Canyon has island tees that require tight irrigation patterns. The course also features other areas where bunkers are adjacent

to native desert areas and water features where irrigation isn’t required, so a short-throw system was needed.

“We’re very conscious of water conservation,” McCall says. “We need precise water placement and the ability to change the trajectory of the throw to compensate for windy conditions. The latest short-throw systems better handle changes in water pressure, which is important for distance control and when it’s windy.”

The Mountain Golf Course is perched on the side of Cheyenne Mountain with dramatic views in all directions. Unfortunately, this stunning feature has negative impacts. Because the course was built in 1975, it has been plagued with landslides, erosion and other deteriorating conditions.

In 2003, the decision was made to renovate the golf course. The goal wasn’t to restore the original layout but to come up with a new course



that had the appearance of having been in place since the creation of the original property in 1918. Because engineers and architects were extremely sensitive to land movement, irrigation selection was a top priority.

"We needed to make sure the water stayed strictly confined to the turfgrass areas," says Fred Dickman, director of golf course maintenance. "We also have a lot of wind here, so we wanted to have flexibility with nozzle settings."

The new course has 57 acres of maintained turf and 70 acres of native grasses. Management at The Broadmoor chose Toro's 835S/855S series with the TruJectory feature.

"Along the native and golf course boundaries, we can adjust the nozzles to operate 360 degrees to water the turf and the native grasses as they grow in," Dickman says. "Then we can turn them back to part circles after the natives are established."

Olde Florida has a tee complex shaped like a

peninsula that jets into the woods. The challenge is to irrigate the tees and nothing else.

"We use a block system with six heads to place water precisely on the finger of turfgrass, with nothing going into the woods," says Darren Davis, director of golf course operations. "We can only accomplish this with short-throw irrigation capability."

ENVIRONMENTAL STEWARDSHIP

Efficient water management not only impacts conservation and a golf course superintendent's budget, it's also part of being a better environmental steward. Hurdzan holds a Ph.D. in environmental plant physiology and is known for designing golf courses that exist in harmony with their surroundings, minimizing their impact on nature.

"We have a long way to go in water conservation, and one of the biggest wastes is when you spray water up in the air and the wind blows it,"

he says. "Then you get very little effective water on the turf. Short-throw sprinkler heads help answer that."

Efficient water management and conservation are the future of irrigation, says Jeff Kiewel national sales manager for Rain Bird.

"When we design our products, being better stewards of the environment is part of the process," he says. "Our goal is to use less water with better results."

Davis agrees. "The days of overthrowing water are gone," he says. "We use the latest technology to irrigate just the turf. Golf course superintendents are stewards of the environment. We only water what has to be watered. It's smart, prudent and the right thing to do." **GCI**

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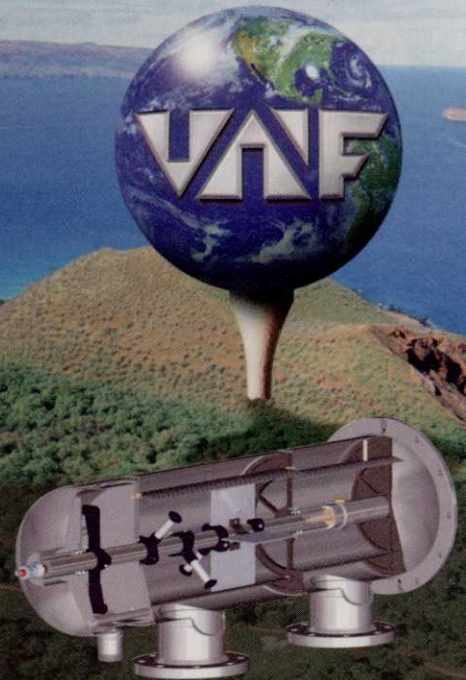
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FEEDING THE GREEN



Fertility practices throughout the country vary greatly. Though many superintendents still use granular products, the distribution of the product across the surface is the focus. Photo: LESCO

BY T.R. MASSEY

STEADY GROWTH AND FOLIAR APPLICATIONS ARE KEY TO MOST FERTILITY PROGRAMS

Among the multitude of tasks any golf course superintendent must perform, maintaining a nutrition program is among the most important.

Throughout the years, golfers have come to expect lush, highly manicured turf conditions. Though vegetation varies throughout the United States, green is synonymous with golf.

Giving plants what they need to stay healthy and lush isn't easy, and when it comes to turfgrass on golf courses, there's a thin line to walk.

"What we do for the health of the turf is at odds with what we do to make a great playing surface," says Todd Lowe, an agronomist for the Florida region of the U.S. Golf Association's Green Section.

Among the 16 or so nutrients needed by plants like turfgrass, the most important three are nitrogen, phosphorous and potassium (NPK). Secondary elements such as calcium, sulfur and magnesium, as well as other trace elements, are needed for specific circumstances depending on climate and soil.

Man-made or organic fertilizers are compounds that help turfgrass grow and are applied in granular form or sprayed on the plant. But turfgrass doesn't know the difference between fertilizers that have been manufactured or come from natural sources such as peat.

SLOW, STEADY GROWTH

Pat Gross, the USGA Green Section's Southwest director who's based in Santa Ana, Calif., has seen trends in golf course fertility programs throughout the past decade.

"Nearly all golf courses spray fertilizers on greens now," he says. "They premix fertilizer the night before, fill the tanks and get it done faster."

Fertility practices vary greatly throughout the country. Though many superintendents still use granular products, the distribution of the product across the turf surface is the focus. It's easier to use liquid when microapplying fertilizers, Gross says. The reason for liquid fertilizer use is the heightened expectations of putting surfaces, the area of a golf course that receives special focus regarding fertility programs.

"They're spoon-feeding," Gross says about superintendents. "Instead of a half-pound once a month on the greens, they'll apply a tenth of a pound once a week. Light, frequent applications are what's known as spoon-feeding."

The turf must have what it needs to remain healthy and grow.

"You don't want spikes in growth because that slows down greens and creates more clippings," Gross says. "Spoon-feeding lets you maintain steady growth. Of course, lots of things go into the speed of a green, but fertilizer is one aspect of it."

Even though fertility programs vary throughout the country, spraying is the biggest trend, Gross says.

"In the Southwest, salinity and sand issues come into the management of the fertility program, but overall, spray equipment has gotten

more sophisticated," he says. "Also people see their neighbors doing it, and they have to keep up with the Joneses."

Dedicated sprayers allow superintendents to apply fertilizer at low rates. And fertigation – the practice of injecting fertilizers through the irrigation system at low rates – helps keep turf growing at slow and steady rates, especially on fairways, tees and roughs. This mechanical evolution has allowed fertility programs intended for greens to expand.

"Putting green aprons are now getting attention," Gross says. "They're extending these programs away from the greens."

TWEAK THE PROGRAM

Across the country in Arundel, Maine, the course at Dutch Elm Golf Club features bentgrass and *Poa annua* on the greens, tees and fairways, and ryegrass and bluegrass in the rough. Golf course superintendent Jeff Hevey, who's been at Dutch Elm for 15 years, has noticed the same trend of using liquid fertilizers.

"The biggest change I've noticed is that I've started using liquids," he says. "For our fairways, we used to do three applications a year, and for the first time, one of those applications will be a liquid. We do it in June, July and August, and the first week of September is liquid for the greens."

Hevey always uses a granular fertilizer on his tees, which are cut at higher heights than the rest of the course.

"The only problem with granular is that we have a bit of a problem with people mashing it into the ground when we have a lot of play, but it does OK," he says.



Todd Lowe (wearing the white shirt) of the USGA holds a soil sample while discussing nutrient management with a golf course superintendent and green committee. Photo: USGA

Like most superintendents, Hevey is constantly tinkering with his fertility program. Last year, for instance, he used Polyon time-release fertilizer to make it last longer.

"They say you can put it down at a high rate and have it last all year, but there's not enough research yet," he says. "It will be great for baseball fields, college areas, maybe roughs. I'm not sure about closely mowed areas. We put it in the fairways and roughs, and it worked well. It's pretty expensive. That's one of the drawbacks."

Although fertigation is becoming a big deal, Hevey doesn't use it.

"It's a little expensive, and I don't think my irrigation system is good enough for it," he says, noting the system was installed in 1987. "I have a lot of heavy clay soils, so I don't have to water as much as other people; but it doesn't take as much water to get the ground where I want it to be," he says.

STICK TO THE BASICS

Experimentation with fertility programs can be good and bad. Bud White, the mid-continent region director for the USGA Green Section who's based in Carrollton, Texas, says superintendents need to be educated.

"Guys need to do regular soil tests," he says. "They need to have that as a part of their program

— how they build their fertility. Some companies have alternative fertility programs, but they don't base them on sound soil tests all the time. That's a mistake. Their claims are made about different products, and there's no university research. There's no proof they're beneficial. Testimonials aren't the same as university research about a product."

Every fertility program has its basis in NPK, a necessary fundamental.

"A lot of people have gotten away from a basic sound nutritional program," White says. "Many alternative programs don't have a basis in science. It's been happening throughout the last four or five years, and they've started to spread. NPK is still the best program."

For young people coming into the profession, White stresses focusing on the basics.

Superintendents also should stay mindful of the fact that fertility programs go hand-in-hand

with water management.

"Too much water can move phosphorous and nitrogen to ground water," White says. "Those are the main polluters of fertility. A modest amount of fertilizer can run off when a guy is overwatering. You have to manage your water programs as well as fertility for environmental concerns and good turf management."

A GOOD MIX

An example of experimentation and region-specific practices can be found in Florida. Bill Brousseau, the director of golf course maintenance at The Club at Admiral's Cove in Jupiter for 18 years, and his two superintendents, Steve Judd and Shannon Wheeler, have concocted a special fertility program that works well at his 45-hole facility. "What we're doing is working for us," he says. "I don't know if it would apply to someone else. It's a different ball game everywhere you go."

The Bermudagrass courses Brousseau maintains lie on sandy soil, of which he takes samples twice a year. The results provide a benchmark for his applications even though there are separate programs for the greens and the rest of the course.

"We go out on a monthly basis with a granular fertilizer, and depending on the time of year, what we want to achieve and weather conditions, that will pretty much dictate what fertilizer we put out each month," he says about areas other than the greens.

On the TifEagle greens, Brousseau uses a granular fertilizer two or three times a year.

"Some companies have alternative fertility programs, but they don't base them on sound soil tests all the time. That's a mistake."
— BUD WHITE

After the granular applications, he sprays the greens to maintain a constant, manageable growth.

"Generally, we use a granular when we're going into our aerification program," he says. "We do a lot of aerifying, verticutting and topdressing. We manage to keep an 18-hole course closed for 30 days so it's healed like nothing ever happened."

Because the turf grows aggressively, Brousseau must closely monitor his fertility program. For foliar applications on greens, he uses various products in his spray tanks.

"We've got our secret recipe that we would never divulge," he says with a laugh, adding that he truly would be happy to share with his peers who are interested.

Rainfall and the time of year also factor into Brousseau's program.



Corcoran

"When we get into periods of large rainfall, it could leach our soils," he says. "We like to keep the turf lean and hungry. Keeping thatch levels down helps keep out disease."

Lowes sees many superintendents in Florida using



Hevey

sprays and special mixtures.

"Because our standards are increasing, the goal is to maintain a consistent putting surface, so light, frequent applications are the trend," he says. "Because our greens drain well, they lose nutrients quickly. It's in constant flux. In the Southwest, the program will be different because they get less rain."

PLAN AHEAD

At Oak Hill Country Club in Rochester, N.Y., superintendent Jeff Corcoran must work diligently to maintain his mix of the right amount of fertilizer for the time of year and soil conditions. During the winter months, he doesn't have to worry as much as superintendents in the South. He uses the time to plan.

"We go through agronomic planning every year, in February and March," he says. "We take our fertility plan and agronomic issues and do a rough layout for the course for the year. We talk about the products we might use. It's a base

plan, a projection."

Corcoran evaluates his fertility program every year and tweaks it a bit. His base program stays the same every year, but there are always new products or technology or formulations that he might want to try.

"Seldom do we go wholesale with a new product," he says. "We do a test mode and slowly incorporate it into our program."

Unlike Hevey, Corcoran uses his irrigation system to augment his fertility program. He uses fertigation primarily on tees, fairways and rough. "But there are times of the year when you get lots of rainfall and can't rely on fertigation as a primary resource," he says.

Oak Hill has hosted several major tournaments throughout the years and is viewed as one of the country's best courses. Therefore, Corcoran does his best to stay on the cutting edge, which, at the moment, means sticking with the program he's developed throughout

the years.

"Nothing at the moment strikes me as real innovative," he says. "We've always stuck with a foliar program on the greens. We spoon-feed. We're about 90-percent foliar on our greens."

Throughout the golf season, Corcoran applies foliar fertilizer, then granular fertilizer. He also uses organic fertilizer lightly in coordination with aerification and tries to go lightly with nitrogen, especially on the greens.

"You have to get the right combination, not too light or heavy," he says. "It's being out there and observing the clipping yields we get off the greens. You get a real feel after a while from a visual inspection. A lot of it is experience and being out there every day. Some of it's intuitive." **GCI**

T.R. Massey is a freelance writer based in Columbus, Ohio. He can be reached at trm@columbus.rr.com.

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A PERCEIVED VALUE

Despite the rewards, some superintendents are ambivalent toward purchasing programs

Many companies – including hotels, airlines and even banks – have them. Points. Companies want consumer loyalty, and they try to earn that by rewarding them with points when purchasing goods or services. Chemical companies are no different. They want the loyalty of golf course superintendents.

But because maintaining golf courses is a business, the purchasing habits are different than an average consumer trying to rack up points to fly to a warm destination in the dead of winter. For the superintendents, it's all about the product. For the suppliers, it's about saying "thank you" for their business.

Syngenta Professional Products and Bayer Environmental Science have similar programs that probably are the most well-known in the industry. Although not a points-based program, BASF's early-order program is well known, too.

THE PROGRAMS

GreenPartners (www.greencastonline.com/greenpartnersnm/index.html) has been around for eight years in one form or another and has been called GreenPartners since Syngenta was formed in late 2000. A strong majority of Syngenta customers take part in the program, says Joe

DiPaola, Ph.D., golf market manager for Syngenta. Even though superintendents say they buy Syngenta products because of their effectiveness, not because of a loyalty program, DiPaola says the GreenPartners program is a simple "thank you" to them. The GreenPartners program also is an extension of Syngenta's brand and helps remind customers of the company, says Margaret McLean, senior marketing communications manager, Lawn & Garden for Syngenta.

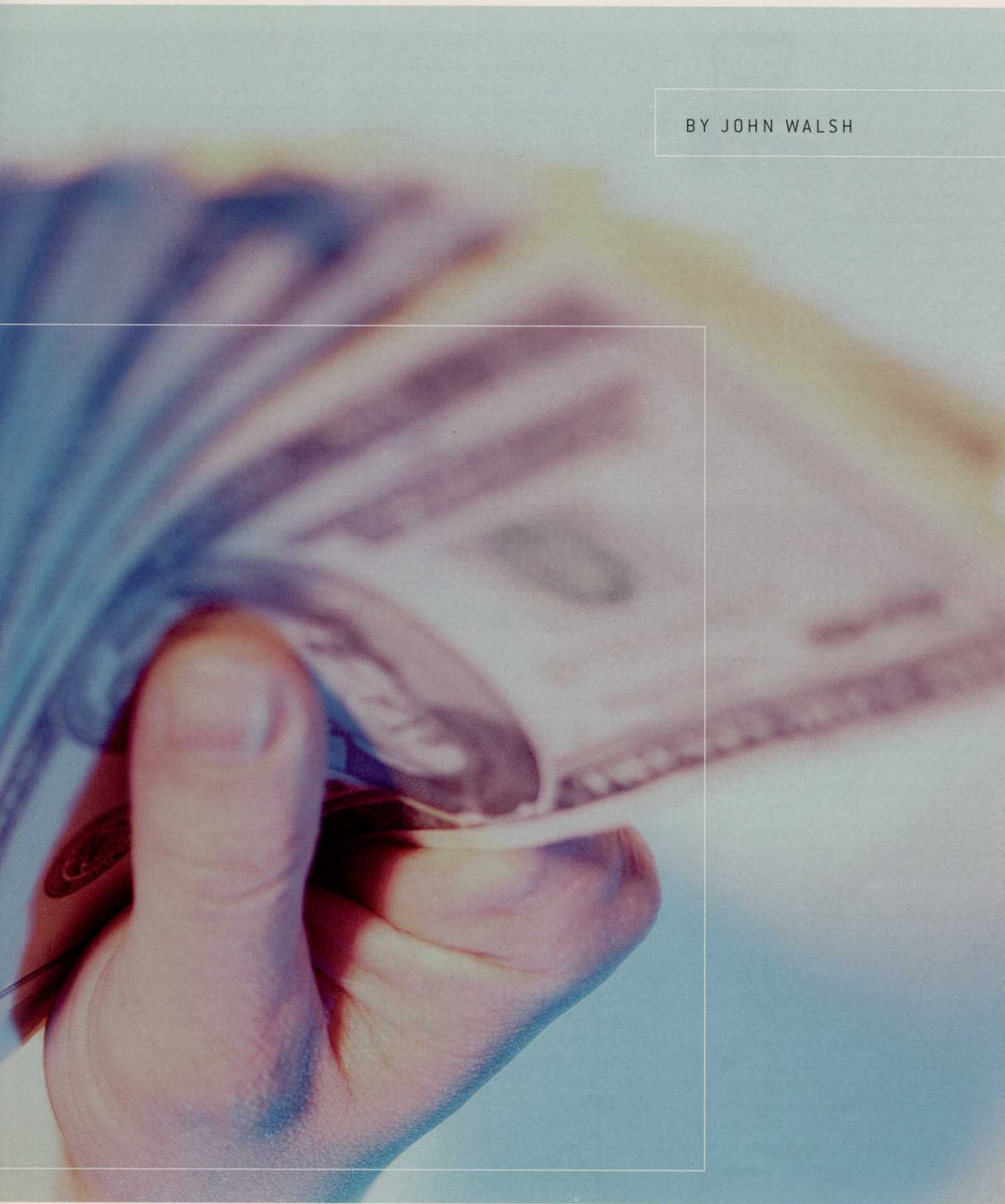
Superintendents can redeem points for a variety of items including turf equipment, education, training videos, airline tickets to a conference and agronomic tools. They also can donate points to associations and universities. But not one product or area is redeemed much more than others, says Norman Barclift, loyalty marketing manager for Syngenta.

Throughout the years, the number of "goodies" such as caps and jackets that were rewarded has decreased substantially, DiPaola says.

"While those were done to increase brand awareness, the program today is focused more on business tools and giving superintendents the ability to reward their crews," he says.

GreenPartners also features a Uniquely Yours program

BY JOHN WALSH



in which superintendents can redeem points for something that's not typically available through the program. They can work with Syngenta to customize something for their operation.

"The points belong to the course, and we want to make sure these items are applicable to the business," McLean says.

At Bayer Environmental Science, the intent of the company's Accolades program (www.accoladesrewards.com) is to reward the best, most loyal customers with additional incentives, says Jason Kuhlemeier, marketing services and project manager for Bayer. Superintendents can redeem points for things such as educational opportunities, training materials, equipment and tools like digital cameras. The best Accolades



DiPaola

for four years and was first called CrewPack because the company wanted to focus on rewarding not only the superintendent, but his crew as well. Rewards that were part of the CrewPack included gloves, jackets and turf-stress identification glasses.

"At the least, we wanted to give something to superintendents that would help them out, such as the turf-stress disease glasses," says Bob York, marketing associate for BASF Professional Turf & Ornamentals. "TVs, computers and things like that were never part of the program."

Now the program is called ProPack.

"We don't do give-a-ways anymore," says York. "We established a turf council that consists of superintendents and asked them what they wanted in an early-order program. They wanted products at a good price, and they didn't want us to change the price of products during the year. BASF changed its program recently.

more, a 6-percent credit.

The number of superintendents participating in the program has doubled every year for the past three years, York says. He declined to say exactly how many superintendents are part of the program or what that percentage is related to all of the company's superintendent customers.

BASF evaluated the program in February to see how well it worked last year. It will make tweaks to the program based on the assessment.

"A lot of decisions are based on the turf council," York says. "We want it to be easy for superintendents to follow and use the program."

Some superintendents enjoy having the Dec. 15 deadline because they know what core products they'll use the next year, York says.

LACK OF VALUE

Yet, with all the possibilities reward programs offer, some superintendents are ambivalent about them because they're more focused on budgets and the need for particular products.

Bruce Worzella, CGCS, at West Bend (Wis.) Country Club, spent \$53,500 on pesticides last year. He earns points from Bayer's and Syngenta's programs and turns them over to purchase GCSAA merchandise. He bought a TV for the shop so the staff can watch the Superintendents' Videomagazine, as well as a digital camera and GCSAA books with reward points.

All the points he earns are turned back into the facility. He says his distributors do a good job of keeping track of the points he earns. Despite his involvement with the programs, Worzella would prefer a price discount.

"They should just lower the price of pesticides," he says. "If companies would be more competitive in price with generics, then we would benefit more from that."

Like Worzella, Scott Schraer, CGCS, at Scioto Reserve Golf & Athletic Club in Powell, Ohio, buys products early in the beginning of November and December from Syngenta and Bayer, earning reward points.

"I used points once a while back to buy pesticides, but points don't mean much," Schraer says. "I want the savings or a discount on the cost of the pesticides."

But DiPaola says lowering the price instead of earning rewards is like comparing apples and oranges, like comparing a capital expenditure

"I'm not going to buy a product because of points. It comes down to cost and service from the sales reps." - SCOTT SCHRAER, CGCS

customers can ask for things they need that aren't available on the Accolades Web site.

"Some customers manage Accolades points more intensely than others," Kuhlemeier says. "Some superintendents may hold on to their points for a while to purchase things like a (John Deere) Gator. But the program isn't exclusive to one supplier."

Accolades points don't equate to a dollar amount. For example, one 30-pound bag of Merit equals 50 points.

For the most part, the program is the same as it was in 2003. However, in mid-2004, Bayer implemented a paperless points system for the program so users could track their points electronically, eliminating the need to make copies of their invoices and submit them to Bayer – although some still prefer to do it that way.

Throughout the years, the program has been successful, and the number of participants has grown each year, Kuhlemeier says.

"There aren't any significant changes on the horizon, but we will continue to look for ways to enhance the program," he says.

BASF's early-order program has been around

"We are not as big as the other guys, so we need to do things smarter or better," York says. "Distributors are important to us, so if a superintendent orders so much, they get a rebate that goes to their account with the distributor. They can use that to buy other products, even those that aren't BASF brands. Superintendents don't want to be told what to buy. They say it's an easy program."

As part of the program, superintendents need to buy any BASF-branded fungicide, herbicide or insecticide (which can be a single product or any combination) before Dec. 15 to earn credit with their turf supplier to save on future purchases on anything they sell. If they buy a minimum dollar amount (\$5,000 to \$9,999), they'll receive a 3-percent credit. The company doesn't offer anything below \$5,000. If they spend between \$10,000 and \$14,999, they receive a 4-percent credit; between \$15,000 and \$19,999, a 5-percent credit; and \$20,000 or



Kuhlemeier

budget with a maintenance budget.

Worzella's fiscal year is from Nov. 1 to Oct. 31, so most of his ordering is done for the following year in November or December. Because of that time frame, he can take advantage of discounts and can hold off paying distributors until May. Worzella, who has a maintenance budget of \$677,000 including labor, hasn't used reward points to purchase more pesticides, and he never uses all his points by year's end.

"I don't spend them just because they're there," he says, adding that he's been part of frequency programs for about five years. "I look at the amount of time and money Syngenta or Bayer invests in bringing a product to market. I have loyalty to the companies who spend the money in the long term. I know superintendents who have a different view of that, but I can lean a little more on the company if there's a problem down the road.

"I look at the best price for the best product," he adds. "These programs are insignificant. It's just something to make you aware of the products. If they didn't have the loyalty programs, I'd still buy from them."

Schraer says he doesn't use points regularly because he doesn't spend the time keeping track of them because he has other priorities.

"For me and my club it boils down to price," he says. "I have a stringent budget. But I'm not saying any one product is better than another. I'm not going to buy a product because of points. It comes down to cost and service from the sales reps. I give my business to as many people as possible, not just agency products.

"Points aren't an incentive," he adds. "Products sell because they work, not because you can get a weed eater. I'm not going to let points dictate how I buy products."

Dave Phipps, golf course superintendent at the 18-hole Stone Creek Golf Course in Oregon City, Ore., purchases branded and some generic pesticides from many suppliers. He might be part of Syngenta's GreenPartners program, but he's not sure because that's something one of his distributors would have signed him up for.

"The frequency or points programs don't have an impact on what I buy or who I buy from," he says.

Of all the rewards items Phipps has heard about - everything from tools to computers - he could justify some things but would have difficulty accepting a gift that would ben-

efit himself personally. However, he wouldn't have a problem with items that would be considered giving back to the industry.

"It's the club's money, so if anybody should benefit, it should be the club," he says. "I hope people have a conscience when they spend their points."

Some public golf courses have strict guidelines because employees are on the public payroll. But Phipps, whose maintenance budget is \$619,000, is on a private payroll because he works for a management company, Total Golf Management Services, which operates the municipal course.

Another reason a frequency program isn't that important to Phipps is his location, the Pacific Northwest, where disease pressure is lower than other parts of the country.



Phipps

"We don't use a lot of insecticides and fungicides," he says. "For example, I've never seen fusarium patch. We have bentgrass greens that I spray two or three times a year. At most, some guys are spraying their bentgrass greens once a month. We don't stand to gain much from the frequency programs."

Refuting superintendents who say the programs aren't valuable, DiPaola cites the number of superintendents in the GreenPartners program and their purchasing behavior.

"There are a significant number of people taking advantage of the program," he says.

And despite superintendents saying they don't perceive value in rewards programs, Schraer says he gets it.

"If you're at a club where you can buy tools you normally won't buy, then it's valuable," he says. "It's an option to purchase something you normally wouldn't buy." **GCI**

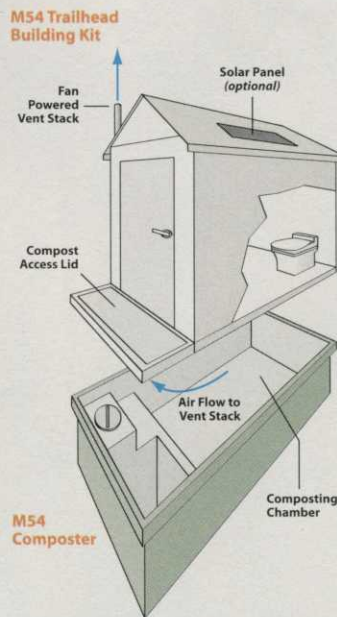
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AWARDS

The GCI staff presented the 2007 *Golf Course Industry* Builder Excellence Awards at the Golf Course Builders Association of America's awards dinner, which occurred in conjunction with the Golf Industry Show in Anaheim, Calif. Four awards were presented. SEMA Golf won the Creative Award for best new construction with Toscana Country Club in Palm Springs, Calif. Landscapes Unlimited won the Heritage Award for best reconstruction with Fiddlesticks Country Club in Fort Myers, Fla. Aspen Corp. won the Legacy Award for best renovation with The Old White Course at The Greenbrier in White Sulphur Springs, W.Va. And Heritage Links won the Affinity Award for best environmental project with Liberty National Golf Club in Jersey City, N.J. The following four articles depict these award-winning projects.



The South Course at Toscana Country Club features lakes, streams, waterfalls and palm trees set across newly created rolling terrain. Photo: Joshua Klyne

A FIRST-CLASS facility

Attention to detail and addressing issues trump weather and tragedy to complete a high-end development project

BY DOUG SAUNDERS

In 2003, William Bone, founder and c.e.o. of Sunrise Co., set the ambitious goal to create the finest private equity golf club in a region that's already home to some of the most prestigious golf addresses in the world: Palm Springs, Calif. Bone owned a prime 640-acre parcel of land in the Coachella Valley since 1985 and, after several tries during the past few decades, he was ready to make that dream come true.

Bone's vision included a luxury residential community, 36 holes of golf (27 of which are complete to date) and all the amenities expected at a first-class facility. He thought obtaining the services of designer Jack Nicklaus would provide the project instant recognition.

That vision became a reality when Toscana Country Club opened for play December 2005 after a 14-month construction process managed by Scottsdale, Ariz.-based SEMA Golf. Not only did SEMA build 18 holes of golf, water features and bridges in 14 months, it completed another nine holes within budget while sharing the site during the creation of the housing infrastructure.

"Many builders in the industry were interested in this project because it was going to be such a high-profile job," says Bob Steele, president of SEMA. "We were fortunate to be awarded the contract and spent three months planning and meeting with various team members before we even began work."

The relatively flat, sandy land actually had a cross slope of 200 feet, and more than six

million cubic yards of dirt were moved during the mass excavation to prepare the site for golf course and home construction during a four-month period.

Nicklaus designed two distinctly different types of golf courses for Toscana. The South Course, which was built first, is a classic Coachella Valley-type course featuring many lakes, streams, waterfalls and palm trees set across newly created rolling terrain. The North Course is more of a desert-type layout featuring numerous rock outcroppings with green fairways as sharp contrasts to the desert terrain that frames each hole.

"These two styles called for carefully following the grading plans to create the proper perspectives," Steele says. "One of the enjoyable things about working on these flat sites is using machines as creative tools to develop interesting landforms. The desert is a palette, and our shapers become the artists."

Building Toscana was the second collaboration between Nicklaus and SEMA, who built the Outlaw course at Desert Mountain in Scottsdale, which won the Creative Builder Excellence Award in 2005 ("Making it happen," March, p. 32). Having worked with the Nicklaus Design team before also was an advantage for SEMA.

OPEN LINES

The key aspect of such an ambitious project was developing a clear line of communication between the developer, the design team, and all



2007
**Creative
Award Winner**

AT A GLANCE
Toscana Country Club

Location: Palm Springs, Calif.
Type of project: New construction
Cost: \$11.7 million
Construction started: November 2004
Course opened: December 2005
Builder: SEMA Golf
Architect: Nicklaus Design
Golf course superintendent: Rick Sall
Owner: Sunrise Co.

Original plans for Toscana called for about 160 bunkers, but as Jack Nicklaus and William Bone changed things when visiting on site, the project finished with 223 bunkers.
Photo: Joshua Klyne

of the subcontractors whose input and commitment were critical for success. Gary Peterson, golf course construction manager for Sunrise Co., oversaw the construction.

"We've done many projects similar to this but not on this grand of a scale," he says. "I had a solid idea of where the numbers should be when we took this project out to bid, and every builder was interested in being a part of the project. We settled on SEMA after several interviews. This was my first experience working with SEMA, and I was impressed with its attention to detail and willingness to address issues as they arose."

It was Peterson's position to formulate a time-line schedule for the project and then focus on keeping things moving along. Because so many facets of the project were dependent on the production of each subcontractor, it was a daunting task. Peterson held daily meetings with Brandon Steele, the construction superintendent for SEMA, and the various subcontractors. He also held regular meetings with Nicklaus site coordinator Tom Soileau, designer Jon Garner and Brandon Steele.

"SEMA Golf's strong point was always be-

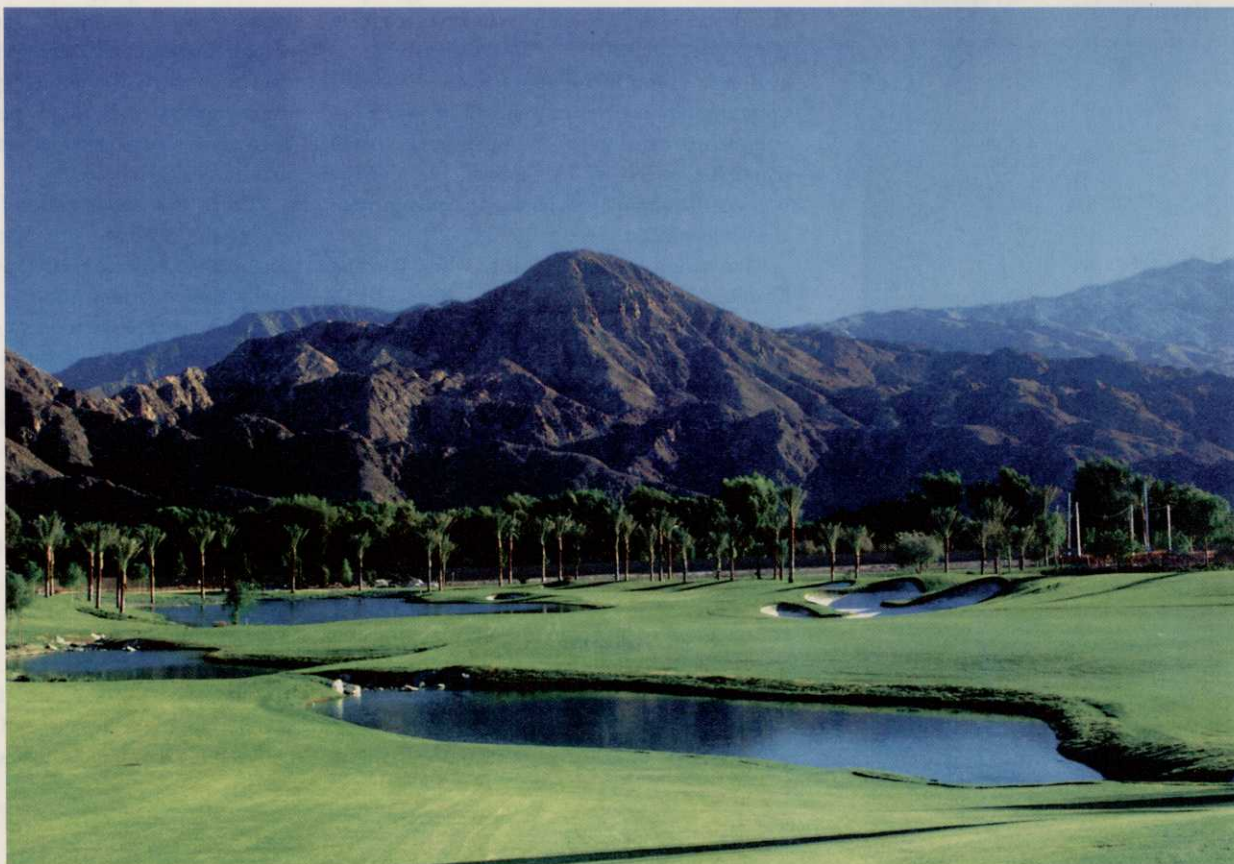
ing able to take care of simple changes as they arose," Peterson says. "For example, the original plans called for about 160 bunkers, but as things changed during on-site visits by Jack and Mr. Bone, we ended up with 223 bunkers. But those changes never slowed down the progress because SEMA took care of these types of changes immediately."

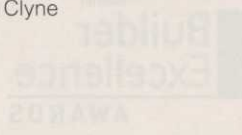
Through a clear line of communication and detailed paperwork, change orders were kept to a minimum, which helped keep the job within the \$11.7 million budget. Progress continued on time despite having almost 1,000 workers on site during the height of construction.

"Having worked with Nicklaus before helped us to understand the process from the designers perspective," Steele says. "We learned what things the on-site designer could deal with and what things would need Jack's input. This helped us have things ready before Jack's visits, which would help him with his task."

MOTHER NATURE

Weather can be a factor in any construction project, and in the Palm Springs area, the biggest





SEMA spent almost \$3 million on continuous dust control using water trucks and irrigation lines. Photo: Joshua Clyne

challenge is wind. On a site where one can bore down through 10 feet of pure sand, dust control can become a considerable expense. SEMA spent almost \$3 million on continuous dust control using water trucks and irrigation lines.

Another important feature of Toscana is the separation of the golf courses from the home sites. The course is set down into the terrain, and the home sites sit on top of bluffs, which, while expensive, provide better site lines for the golf holes and home sites.

A TRAGIC LOSS

The development of the awarded-winning project didn't go without a tragic loss, however. Tragedy struck the project as a result of the untimely death of Brandon Steele just a few months before the project was completed. Brandon Steele's contagious enthusiasm had inspired hundreds of workers on the site for months. After his passing, every subcontractor involved took the initiative to continue the job as a tribute to his memory. It was this type of commitment that helped carry the project along to the completion of the first 18 holes in November 2005.

LASTING MEMORIES

Overall, SEMA did an excellent job throughout the project, says Rick Sall, golf course superintendent at Toscana who worked on the project through the construction and directed the final grow-in.

"We got pressed toward the end of the job to have enough time to establish the Bermudagrass sprigs, and SEMA made extra efforts to get

this process going," Sall says. "We managed to get sprigging done around the end of August and were able to have puttable surfaces by the middle of October."

SEMA completed the South Course and the first nine holes of the North Course on budget and is discussing completing the North Course with Sunrise.

"SEMA Golf performed admirably throughout this project by making sure all of the work was completed as each hole was signed off," Peterson says. "The work was completed in a timely

fashion to allow for sprigging prior to growing season. This is why we are discussing the North Course completion with SEMA."

Since opening, Toscana has established itself as a premier club in the region. It's success can be gauged in several ways, one being that many new members have come from the other established golf clubs in the area.

Looking back on the project, one of Bob Steele's lasting memories always will be coming through the front gates as the project was nearing completion.

"I've been building golf courses for 20 years, and I've never seen one that was so complete at the end," he says. "With the hundreds of mature palm trees and the massive entry, it seemed as though the complex had been there for 10 years. It was a project that holds many memories, both good and bad, and one that I'm proud to say we were a part of." **GCI**

Doug Saunders is a freelance writer based in Truckee, Calif. He can be reached at dougs@sierra.net.

What the judges said

"An excellent job on a very demanding site with a very demanding architect. From all reports from the architect, owner and superintendent, it coordinated the job very well. All parties were happy with the finished project, and the pictures that were provided would attest to the good job it did."

— **Mike Bylen, owner of Pine Trace Golf Club in Rochester Hills, Mich.**

"The builder worked for a very demanding owner and architect. Everything was meticulously done on time and on budget. It had a large design/construction/ownership team, and they all worked well together. The return on investment was very good."

— **Terry Buchen, president of Golf Agronomy International in Williamsburg, Va.**

"This was a good situation in which the owner and architect raised their demands and expectations, and the builder just went ahead and beat those."

— **Jeff Brauer, golf course architect and president of GolfScapes in Arlington, Texas**

"Not only did it have a very particular architect in Nicklaus, it had a very particular owner. The builder completed the job within budget and did it within the time frame, and the owner got a wonderful return on its investment. The builder received excellent reviews from the architect, owner and golf course superintendent."

— **Joe Livingston, CGCS, River Crest Country Club in Fort Worth, Texas**

DESIGN CASE STUDY

GOLF COURSE
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AWARDS

RESTORING A classic

Aspen Corp. helped restore The Old White Course at The Greenbrier. Originally, the course was designed by C.B. MacDonald. Photo: The Greenbrier

2007
Legacy
Award Winner

“It’s like finding an old car in a barn. If it’s a Duesenberg, you don’t want to try to put a Chevrolet motor in it. You want to restore your Duesenberg.”

– Lester George, golf course architect

A BUILDER OVERCOMES INCLEMENT WEATHER AND TIME CONSTRAINTS TO RESTORE A RESORT COURSE

BY BOB SELIGMAN

When you’re dealing with a classic – whether it’s something like a Duesenberg or an old golf course built by a master architect – you have to be careful. Restoring a classic to its previous grandeur can be extremely slow, time-consuming work.

Therefore, it would be normal to expect that when The Greenbrier opened up the barn, so to speak, in 2002 to restore its classic C.B. MacDonald-designed and Seth Raynor-modified The Old White Course, the resort in White Sulphur Springs, W.Va., would undertake the task with some trepidation.

Resort management wanted to make sure the restored version of the course had the same flavor and character as the original, with an increased level of challenge to entice and satisfy golf’s current premium on distance.

“It’s a course that people have loved to play for 90 years,” says Robert Harris, director of golf at the resort. “It’s like an old shoe or glove. It just feels very comfortable. The Old White Course has fond memories for generations of Greenbrier guests. We have three or four members that are former presidents of the USGA. When you’re going to renovate something like that, you have to be very careful.”

Especially when research showed the initial course had been lost.

“It had the modern, TV-look of Firestone (Country Club in Akron, Ohio) – the tree lined fairways,” Harris says. “Most of America’s courses try to emulate Augusta or Firestone in the ’50s and ’60s, but what we had here was basically an open farm that was broken up into hundreds of features – bunkers, creeks, mounds of all sorts – and all those went away.”

ADVERSE CONDITIONS

Management committed itself to restoring The Old White’s distinctiveness. Files and data gathered from a historian on property were used during the research process. Aerial photos taken throughout a two-year period depicted the course MacDonald originally created. Lester George, the architect from Richmond, Va., who was hired to do the restoration, remained true to MacDonald’s elements and vision. George, president of George Golf Design, compares the work done on The Old White Course to performing eye surgery.

“Properly done, restorations are very tedious and difficult,” he says. “They take a lot of time, research and planning. If you’re building a new course you pretty much have your way with the site and put in whatever you want to interpret. When you’re doing a strict restoration, it’s difficult, time consuming, long-hours-type work. It’s a very delicate operation and process.”



At times, Aspen used more than 2,000 man-hours a week, which is more than double the norm, for the project. Photo: The Greenbrier

Especially when you're dealing with adverse conditions. Because of the popularity of The Old White Course and the fact The Greenbrier's management didn't want it closed during the season, the restoration was done in the late fall and winter throughout a four-year period from 2002 to 2006. Generally, work was started in mid- to late October and ran until the course reopened about the second week of May. Snow, sleet, rain and cold temperatures were constant combatants that had to be dealt with. The weather and time constraints were the biggest challenges, says Ronnie Adkins, vice president of Daniels, W.Va.-based Aspen Corp., the builder on the project.

"Those are the two factors that were always driving the project and how we approached things," he says. "The time frame wasn't going to change. They needed the place open for their guests in the spring. The weather was totally unpredictable, so you had to be prepared for every possibility that would come along, and, of course, it did."

Aspen elected to man-handle the situation by using an enormous amount of man power. At times, the company used more than 2,000 man-hours per week, which is more than double the norm,

AT A GLANCE

The Old White Course at The Greenbrier

Location: White Sulphur Springs, W.Va.

Type of project: Restoration/renovation

Cost: More than \$5 million

Construction started: Fall 2002

Course opened: May 2006

Builder: Aspen Corp.

Architect: Lester George

Golf course superintendent: Pat McCabe

Owner: The Greenbrier

REPAIR CASE STUDY
GOLF COURSE
Builder
Excellence
AWARDS



Because of the popularity of The Old White Course and the fact that The Greenbrier's management didn't want it closed during the season, the construction work was done in the fall and winter throughout a four-year period. Photo: The Greenbrier

for the project. Workweeks ranged from 70 to 90 hours, seven days a week, with about 60 people on the project. There were no days off until the greens were shaped, which had to be done before Nov. 25 to allow for proper grow-in time. Light plants, which Adkins says are unusual in the golf business, were used so work could start earlier in the morning and continue late at night.

There was plenty of work to do and challenges to meet. Turfgrass had to be delivered in the right quantities at the right time. Irrigation had to be charged and tested even though it was winter. New cart-path construction and relocation was immense. Existing underground utilities were discovered along with utilities that weren't identifiable before work began. The resort's internal roads had weight restrictions that required the use of additional trucks to get the necessary materials to the site on time. Flotation tires were used on equipment to eliminate as much damage as possible. Sod had to be contract grown and delivered inside an enclosed trailer to avoid freezing.

IT'S ALL GOOD

The project had to be done in a way in which The Greenbrier didn't get too far ahead of itself. The four-phase operation was completed on time, and although more than \$5 million was spent, the restoration remained on budget.

The project has made The Old White a much better course, Harris says. Before, most of the

holes weren't memorable, and they would blend together in a golfer's mind. But not now.

"They don't all look the same," he says. "There are several open creeks that weren't there before. The mound work and many of the cross-bunkers were put back in. There's 18 holes of decision-making. There's the risk, there's the reward, there's the safe route. It's a little harder to score on the longer shot."

Everyone is happy with the outcome, says Pat McCabe, director of golf maintenance.

"It worked out great," McCabe says. "Our golfers enjoy the course. You've got to think now when you play. We initiated some fine fescue grasses and some naturalized areas that's given the golf course added character. C.B. MacDonald and Seth Raynor would be very happy if they played it." **GCI**

Bob Seligman is a freelancer writer based in Suffren, N.Y. He can be reached at bhseligman@aol.com.

What the judges said

"There was great coordination and order from an owner's perspective. The course opened for every season, as well as parts of the resort that had to be opened. It was a very complicated project, and it was stunning to do that, especially in the winter."

— **Charlie Birney, managing director of The Brick Cos. in Edgewater, Md.**

"It did a good job of coordinating a four-year period restoration project dealing with many different challenges, not the least of which was weather and traffic patterns for nongolfers, moving roadways and dealing with existing walking paths. Another challenges was time constraint of getting this work done and seated so the following season's play could be realized."

— **Mike Bylen, owner of Pine Trace Golf Club in Rochester Hills, Mich.**

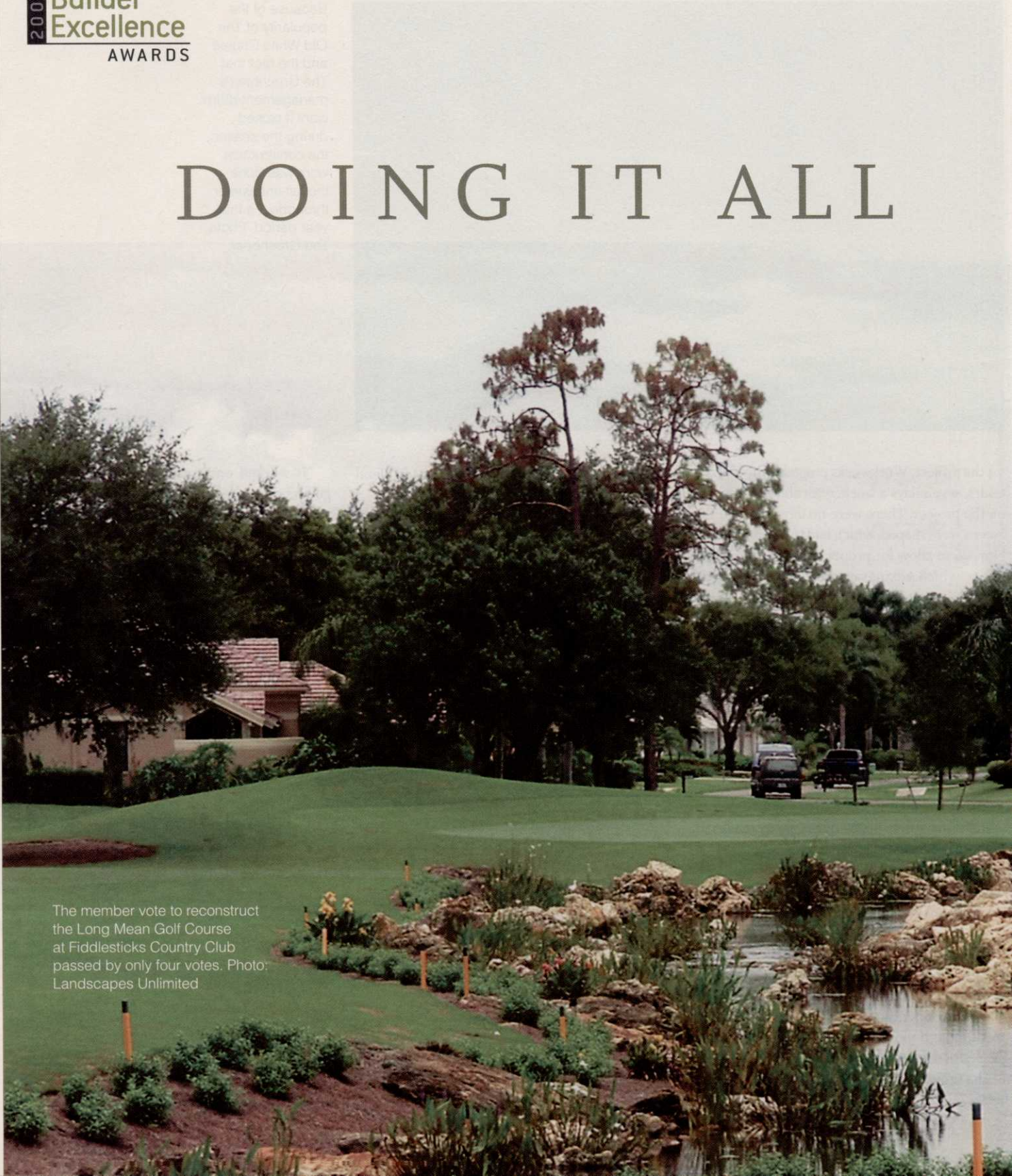
"It had tough time constraints building and renovating the golf course during the off season and during the wintertime, and the company did it on time and on budget and had a good return on investment."

— **Terry Buchen, president of Golf Agronomy International in Williamsburg, Va.**

DESIGN CASE STUDY

GOLF COURSE
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DOING IT ALL



The member vote to reconstruct the Long Mean Golf Course at Fiddlesticks Country Club passed by only four votes. Photo: Landscapes Unlimited

2007 **Heritage**
Award Winner

A builder takes a turnkey approach and battles hurricanes to reconstruct a Florida course

BY MICHAEL COLEMAN

After successfully reconstructing the Long Mean Golf Course, members of Fiddlesticks Country Club in Fort Myers, Fla., feel like they've turned back the clock 23 years when they step on the first tee. The restoration is an accomplishment that earned Landscapes Unlimited a vote of confidence from the most demanding client: the club's members.

"The members voted to do this, and it passed by four votes," says Greg Pick, executive vice president of Fiddlesticks. "Now, you can't find anybody that voted against it."

Unlike projects that disintegrate into squabbling among various contractors involved, this one was marked by teamwork and exceptionally good communication between contractors and club membership.

Landscapes Unlimited had responsibility for the entire package, including engineering, architecture, design, purchasing, construction and grow-in. With its background of building golf courses, some of which it owns, Landscapes has the resources to manage the additional risk of the design-build approach.

"We learned from our own experience," says Leonard Schilling, a regional manager for Landscapes based in Southern Pines, N.C. "We're better able to identify many pitfalls earlier."

While a company's capabilities are crucial, it all boils down to people, says architect Ron Garl of Ron Garl Golf Design based in Lakeland, Fla.

"They sent a very capable golf course superintendent down there," Garl says. "They picked CT Shaw, who was the right one for the job. He did a great job and was an excellent choice."

Alongside Shaw was golf course superintendent Ryan Costello, who was brought in by the club to assist with the construction phase.

"He and CT were joined at the hip for the entire project," Pick says. "Ryan would write a weekly report for the members so they knew what we were doing. It eliminated a lot of controversy."

In the eyes of the members who voted against it, the polished communication helped the project evolve from a rough stone into a crown jewel. Having a primary contractor also contributed.

"Having a contractor that has the capability to oversee

all aspects of a job is fantastic for the club," Costello says. "You don't have to worry about who to call. It's their job to handle everything."

The original contract stated the guaranteed maximum price to be \$4.9 million and the designer-builder to be responsible for additional costs except for scope changes. The final cost was about \$5.2 million after several club-approved scope changes and improvements.

AT A GLANCE **Fiddlesticks Country Club**

Location: Fort Myers, Fla.

Type of project: Reconstruction

Cost: \$5.2 million

Construction started: February 2005

Course opened: November 2005

Builder: Landscapes Unlimited

Architect: Ron Garl Golf Design

Golf course superintendents: CT Shaw and Ryan Costello

Owner: Club members



During the reconstruction, Landscapes Unlimited was responsible for engineering, architecture, design, purchasing, construction and grow-in. Photo: Landscapes Unlimited

NOT SO EASY

Even though Landscapes' turnkey approach made certain aspects of the project easy, Mother Nature wasn't so helpful. The crew at Fiddlesticks Country Club survived repeated lashings from hurricanes, but with the help of Landscapes, it restored the course to prominence within a tight schedule. With some of the turf eradicated because of a fall pesticide spraying, the construction phase began Feb. 14, 2005. The course was finished and grow-in of the Tifway 419 Bermudagrass complete when another hurricane came lumbering through and conflicted with the opening.

Pick toasted the team involved for collaborat-

ing to overcome the hurricanes that swarmed the area from day one until the opening Nov. 3, 2005. Pick's crew rebounded quickly from the first blow from Hurricane Charlie in August of 2004.

"We had a lot of clean up to do, and we just got it done," he says.

Much of Costello's work early on was coordinating the cleanup of 500 trees blown down by Hurricane Charlie. Once the cleanup was complete, the project progressed more smoothly. Fiddlesticks' membership helped with that progress. It was represented by two members with construction backgrounds, Hap Skillman and Frank Scott. They helped Costello track the progress of the work and communicated,

A cleanup of 500 downed trees as a result of Hurricane Charlie affected the reconstruction project. Photo: Landscapes Unlimited

FROM



“You really had a good mesh of the right people and personalities,” Schilling says. The group Fiddlesticks put together with members Skillman and Scott was terrific because they knew construction and how to work through challenges, Schilling says.

Garl, who designed the course 25 years ago, was brought back for the reconstruction to help the club retain the heritage of the course. One of the enhancements Garl likes is a new waste area that swings around the first fairway, adding a wow factor to the opening hole. The waste area mimics the soft dunes of inland Florida.

“If you go inland, that’s what happens to the natural land,” Garl says. “Mother Nature is our best guide.”

Members are enjoying one of the better courses in Florida since the reconstruction.

“It truly is the flagship of golf in Southwest Florida because it withstood the test of time,” Garl says. “We’re excited to have a job done that well by a great team.”

Michael Coleman is a freelance writer based in Kansas City. He can be reached at mike.coleman@comcast.net.

almost daily, with the team from Landscapes, including Shaw and Oscar San Juan, the irrigation superintendent.

“Just the way the three of us worked together was far and away the best part of the project for me,” Costello says. “No one was trying to be special. We were all doing our part. That was fantastic.”

In addition to the hurricanes, there were other challenges:

- Shrinking greens and bunkers. Greens suffered a loss of pin placements under normal maintenance. The bunkers and greens were restored to the original specifications while adjusting for TifEagle greens.
- Outdated irrigation. The original plan was to replace two old pump stations and improve water capacity. During planning and design, it was determined that one of the pumps also served the Wee Friendly course at the club. The team determined both courses’ water problems could be solved by installing a larger pump station at that site and leaving the second pump station in place.
- Deteriorated cart paths. Old paths were replaced and waste areas were utilized to handle much of the cart traffic.
- Stagnant canal. The third hole was improved by adding a series of waterfalls to a revamped creek. Native limestone found during construction was used for landscaping the signature hole.

A DIFFERENT APPROACH

All members of the team working together was crucial because the approach to the project was so different.

“Having Landscapes Unlimited be the only go-to, I’d never heard of that before,” Costello says. “It was very interesting having one person in charge of construction, architecture, grow-in, grassing – just every aspect of it.”

Landscapes’ expertise in multiple areas made the project run smoothly, Schilling says.

“It was just a matter of focusing the resources we already had into that, and we felt we could do it pretty successfully,” he says.

Knowledgeable club members also were helpful.

What the judges said

“There was a unique relationship in which Landscapes actually became the owner agent and was the only go-to company through which the ownership or membership worked. Landscapes then went out and contracted with the original architect, Ron Garl, irrigation architects and anyone needed to provide engineering or landscape design for the project. It was a success because they created a good product at an agreed upon price in a timely manner.”

— **Terry Buchen, president of Golf Agronomy International in Williamsburg, Va.**

“It’s pretty remarkable that it turnkeyed the job from design to actual grow-in. It looks like the owner is very happy with the outcome. They’re making money on their investment, which shows the builder accomplished its job.”

— **Joe Livingston, CGCS, River Crest Country Club in Fort Worth, Texas**

GOLF COURSE
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FROM SUPERFUND TO supersite



On the course at Liberty National Golf Club, there's as much as 45 feet of fill above the cap in some spots. Photo: Philip Sokol

About three million cubic yards of soil were brought in to cap the site before construction. Photo: Philip Sokol



A development project turns an EPA waste site into a golf course gem

BY GCI STAFF

Real estate's popular idiom stresses the importance of location, and Liberty National Golf Club in Jersey City, N.J., might have one of the best.

On the banks of the Hudson River, in the shadow of Manhattan's skyline and under the watchful eye of the Statue of Liberty sits Liberty National Golf Club. More than a dozen years went into developing the course that stretches as long as 7,500 yards.

Professional golfer Tom Kite, who teamed with golf course architect Bob Cupp to create the course, dates his involvement with the project to 1992 when he participated in a corporate outing at the TPC at Avenel for a law firm in Washington. There he met Rusty Bayliss, vice president, commercial, for the London and Scottish Marine Oil Co.

"He had a dream of turning this site into something useful," Kite says. "It was a wasted piece of property."

Cupp refers to the site as 100 years of industrial sins because of its history as an oil refinery and Army base.

It's one of those once-in-a-lifetime projects because of its location, says Rowland Bates, executive v.p. and executive project director of Willowbend Development, owner of the club.

"This is something special and won't come along again, I think," he says.

When Dan Fireman, president and c.e.o. of Willowbend, first visited the site, there were

eight warehouses cluttering the view. Even then he could see potential.

"I came out, saw it and said 'wow,'" he says. "Without a doubt, the majority of the land was blighted. It didn't look good."

Jon O'Donnell, division president of Heritage Links, the builder, was in awe of the views when he first visited.

"It's the most spectacular view of any metropolitan city in the world for a golf course site," he says. "It was a tremendous site observing our bulldozers and finish tractors working in the shadows of one of the most visible attractions in the world – the Statue of Liberty."

ATTENTION TO DETAIL

About three million cubic yards of soil were brought in to cap the site before construction. Then another one million was imported to enable the architects to establish the final contours.

"It took a lot of time, thought and effort to make sure this thing was contained," Fireman says. "But there's nothing that's extremely toxic under the site."

Being a brownfield site, plans had to be exact.

"We had to follow very specific designs," Bates says. "We needed to know exactly where we were on the site. It was an extremely difficult and costly project from that aspect ... and we did it in record time."

The drainage installed throughout the course, especially the driving range, was very deep at times, O'Donnell says.

"Heritage Links monitored all installation and exact location of installation with their GPS survey instruments so that depths – because of environmental capping – weren't exceeded," he says. "A liner was installed during the environmental mitigation of the site and couldn't be penetrated during course construction."

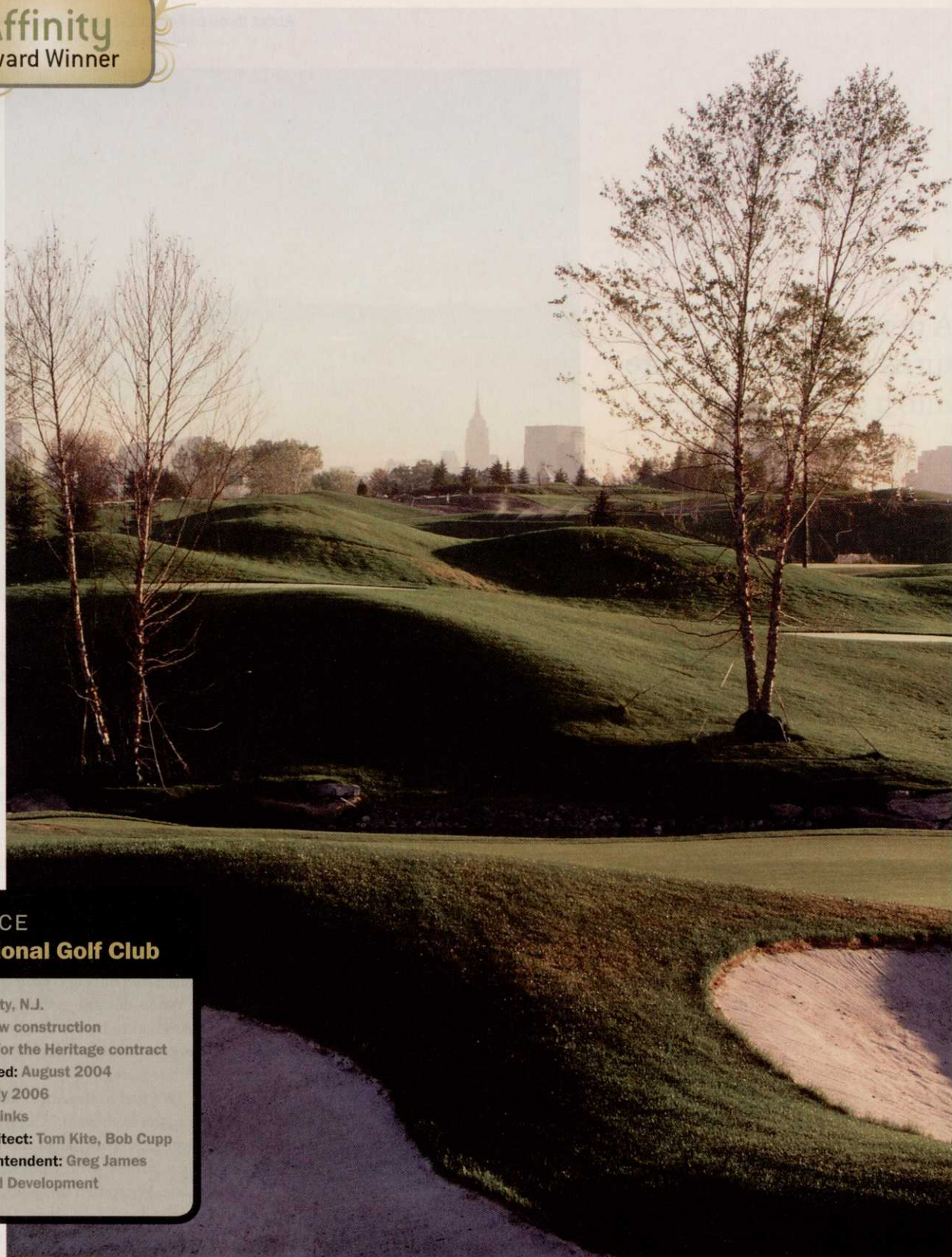
When designing the course, Cupp says the team had to be extremely cognizant of the underground and couldn't go deeper, only higher, with features.

"We had to use our brains below the ground as much as above it," Cupp says, adding that the biggest type of change was altering or eliminating a bunker – no wholesale changes could be made. We routed this golf course until we were purple."

Kite, who says there's as much as 45 feet



Because the owner requested 11 to 12 months of grow-in time before opening, working hours increased to 80 a week for two months during the summer so the grassing could be completed in the fall. Photo: Philip Sokol



AT A GLANCE
Liberty National Golf Club

Location: Jersey City, N.J.
Type of project: New construction
Cost: \$7.8 million for the Heritage contract
Construction started: August 2004
Course opened: July 2006
Builder: Heritage Links
Designer and architect: Tom Kite, Bob Cupp
Golf course superintendent: Greg James
Owner: Willowbend Development

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Heritage Links

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Toscana Country Club
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of fill above the cap in some spots, says he's never been part of a project with such exacting specifications.

"We ended up with one of the most detailed sets of drawings that had ever been done," he says. "Once the plans were drawn, the golf course had little variation from what had been drawn. We really had to follow the plans. It's a good thing Bob and I are believers in the plan. It's expensive pushing paper ... it's a lot more expensive pushing dirt."

SOIL SALINITY, SCHEDULE

Being a reclamation site, the builders and designers had many problems to deal with. For golf course superintendent Greg James, it was countering the high salinity in the soil that was atop his list. Much of the capping materials were dredged from the bay and nearby rivers, so the sand and soil have high salt content. To combat this, James enlisted cultural practices of applying gypsum and PhysioCal to leach the sodium out of the soil. He conducted monthly soil tests that indicated everything was in normal range.

James says the 5,200 sprinkler heads were another big chore, but he has the benefit of an internship program to add qualified workers to his staff.

Having started work on Liberty National in August 2004 and faced with the task of completing grassing within a year, Heritage Links encountered tight deadlines. The crews – led by project manager Grayson Cobb and project superintendent Chris Veal – started working long hours (six days a week, 12 hours a day) in May and June. The exceptionally dry weather helped Heritage complete its tasks. Because the owner requested 11 to 12 months of grow-in time before opening, working hours increased to 80 a week in July and August so the grassing could be completed in the fall.

UNDER PRESSURE

All who worked on the project felt pressure to get the job done in a spectacular fashion because it's a high-profile job.

"The pressure to not screw it up – to do the best course – was huge," Cupp says.

"Both of us felt pressure," Kite says about he and Cupp. "But I don't put the word 'pressure' in a negative connotation. You put yourself in something exciting. It allows the adrenaline to start pumping. I put myself on the line because I love that feeling."

James admits to feeling pressure, but insists it's no different than what any other superintendent feels.

"In this business, everybody is under a lot of pressure no matter what," he says. "I put a lot of pressure on myself. If you have the resources – like we do – everything should get done and done right."

Fireman, who provides those resources, says excellent preparation relieves any pressure he might feel.

"It wasn't pressure, it was exciting," he says. "You get so focused on just trying to get it done."

MAJOR EXPECTATIONS

With an overall price tag near \$150 million, Liberty National wasn't conceived merely to host member-guest outings and weekend golfers. The membership cost of about \$500,000 will make the club exclusive, but playing host to the world's best golfers and the game's most prestigious events will place the club on the map.

"It's not a matter of if, it's a matter of when," Fireman says about hosting championships such as the U.S. Open or President's Cup. "But we're in no rush."

Kite says he and Cupp designed the course

with tournaments in mind – making space for parking, concessions, hospitality tents, grandstands and everything else associated with tournament golf.

"The location and site dictated the quality of golf course we built," Kite says. "Not every golf course has the opportunity to play host to [PGA and USGA] championships. This gave us an opportunity to think way in advance of our history, looking 20, 30, 40 years from now."

Cupp and Kite spent a lot of time to have the course ready to host a major tournament without having to do much of the extra work that goes into preparing for an event.

"It's like pulling off a 2.5 with a full twist in front of 100,000 people," Cupp says using a diving analogy. "This is my defining moment, and I don't plan on retiring."

And Kite puts Liberty National in a competitive light.

"Just as there are golf tournaments and major championships, there are golf courses and major golf courses," he says. "This is at the top of the list. This is the U.S. Open of golf course design." **GCI**

Editor's note: A longer version of this article can be found on page 38 in the January 2006 issue.

What the judges said

"There was a stunning scope of work with the liner and some of the other pieces to that puzzle. It was just an overwhelming project in light of the 8,000 tons of disposal they took out of there"

— **Charlie Birney, managing director of The Brick Cos. in Edgewater, Md.**

"It's by far the biggest golf course construction that I have ever seen or heard of – all working with nine different entities trying to coordinate everything and building everything and doing it on time and on budget."

— **Terry Buchen, president of Golf Agronomy International in Williamsburg, Va.**

"Clearly this is a once-in-a-generation-type project. One that shows how golf can help recreate the environment, will be good for the environment and, of course, with the setting, which is spectacular but also difficult for construction and access."

— **Jeff Brauer, golf course architect and president of GolfScapes in Arlington, Texas**

"Not only did they have to deal with constructing a new golf course in a very tight and constricted area in New Jersey, it was also an EPA toxic waste clean up site. Throughout the project they had to be aware of any liners that were set in place to cap the toxic waste. They installed about 10 miles of pipe with no breaching of the liner. That with the amount of GPS work that would have to be done in importing, that shows that that project was pretty incredible."

— **Joe Livingston, CGCS, River Crest Country Club in Fort Worth, Texas**

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BY LARRY STOWELL, PH.D. AND COLLEAGUES

Shed light on rapid blight

Cooperative effort leads to a better understanding of impact and strategies

Rapid blight discovery is the story of a new plant disease whose unusual biology, inconspicuous morphology and apparently low economic impact almost consigned it to oblivion. It's also a story of what can be so rewarding about plant pathology – the excitement of discovery; the appeal of unraveling the complex interactions among plant, pathogen and environment; and the joy of collaboration. For it was only through a cooperative effort among a privately funded researcher, a publicly funded university, USDA researchers and the golf course industry that the identity of a new terrestrial pathogen

was discovered, its economic impact better understood and strategies for its management developed.

EARLY OBSERVATIONS

During the winter of 1995, David Zahrte, the golf course superintendent of Santa Ana Country Club in Southern California, submitted a sample to the PACE diagnostic lab. Zahrte, who manages 19 *Poa annua* (annual bluegrass) putting greens, was worried that his greens, which seemed fine on a Friday afternoon, were suddenly covered with mysterious-looking patches of dead turf on

Monday. (Fig. 1)

The affected turf's foliage was yellow and brown and had a water-soaked appearance, yet the roots seemed unaffected. A microscopic observation of the sample revealed none of the usual winter time *Poa* diseases such as *Fusarium* patch. There were no obvious signs of fungal pathogen invasion such as mycelia or spores. No insect or nematode pests or their damage were observed, whereas nutritional and cultural problems such as anaerobic soils or nutrient imbalances were also ruled out. The only detected abnormality was the presence of many thin-walled, spindle-shaped cells, measuring 6 by 16 μm and packed inside the foliage mesophyll cells.

Were it not for the sheer number of the spindle-shaped cells, they easily could have been mistaken for cellular organelles belonging to the plant. In fact, one mycologist suggested the spindle cells of the suspected pathogen might be just that, plant chloroplasts. However, when turfgrass samples were maintained in the lab in a moist chamber, the disease spread from diseased to healthy plants. There was a constant association between the presence of the spindle cells and diseased plant tissue. Unfortunately, this organism didn't resemble any other type of documented turfgrass pathogen.

A SERIES OF DEAD ENDS

Early attempts to identify the organism causing the new disease were frustrating. Identification through standard taxonomic keys and attempted isolation on standard culture media were fruitless. Initially, the organism was tentatively identified based on the morphology of its cells as a chytridiomycete. But attempts by Jim Adaskaveg of the University of California, Riverside, to isolate a chytridiomycete on specialized media from infected samples were unsuccessful.



Fig. 1. Initial observation of a mysterious disease (later to be named rapid blight) on an annual bluegrass putting green in 1997 illustrating large coalescing areas. Photo: Larry Stowell

Mycologists suggested the organism might be a protozoan, a single-celled animal, instead. Protozoologists countered suggesting the organism most likely was a chytridiomycete. Both were mistaken. It was discovered this organism was a unique pathogen to turfgrasses and was the first observation of this organism type attacking any kind of land plants.

PUTTING OUT THE FIRE

From 1995 through 1998, an increasing number of infected annual bluegrass samples began to arrive at PACE's diagnostic laboratory from locations throughout California and Colorado. Additional samples of rough bluegrass (*Poa trivialis*), used for overseeded Bermudagrass putting greens, arrived from Nevada. At first, the problem appeared to be spreading; but it's equally likely word began to spread about a new and mysterious disease, making superintendents anxious to see if their turf was being damaged by the disease. Control methods for the disease were needed even though the causal organism hadn't yet been identified.

The late Houston Couch of Virginia Tech was contacted for input on potential control strategies. Based on PACE's descriptions of the thin-walled, spindle-shaped cells, Couch suggested mancozeb might be an effective control agent because of its mode of action as a general membrane disruptor. His guess was correct, and shortly afterwards, mancozeb became the first recognized treatment for prevention and to limit the spread of the disease. This material was used under FIFRA Section (2ee), which permits the use of a registered pesticide on a pest that doesn't appear on the label, as long as the product is used on a labeled crop and all use and handling conditions on the label are followed.

GAINING STEAM

Initially, there appeared to be little interest in this new turfgrass disease in the academic world or the agrichemical industry. However, as the disease was identified in additional hosts and from additional locations, interest slowly grew.



Rapid blight symptoms on ryegrass in Arizona. Photo: Larry Stowell

In 1999, four years after the disease was first described from California *Poa annua* greens, golf course superintendent Mick Twito of Estrella Mountain Ranch in Phoenix submitted samples from a third host, perennial ryegrass (*Lolium perenne*). And in December of 2000, the first sample from the eastern United States was diagnosed when Tommy Witt, then superintendent of Cassique Golf Course in Johns Island, S.C. and president of the Golf Course Superintendent's Association of America, submitted a sample of rough bluegrass containing the same spindle-shaped cells in diseased foliage.

The occurrence of the disease in South Carolina was important because it brought Bruce Martin, Ph.D., of Clemson University into the project. Martin's lab took rapid action in 2001 by initiating a series of chemical management, host range, cultural, biological and molecular studies. Steven Alderman, a USDA forage pathologist at Oregon State University also became involved, investigating the potential for infection and transmission within the perennial ryegrass and rough bluegrass production seed fields in the Pacific Northwest. Fortunately, he ruled out seed-borne transmission as the cause of the initial disease outbreaks.

To further support the productive collaboration and information exchange that was emerging among superintendents and turf researchers, a working group was formed in 2001. The group consisted of superintendents from 60 golf courses throughout the country that were affected by this disease.

Martin and Stowell were uncomfortable with the fact that golf course superintendents and others were using the name 'chytrid' to describe this unknown disease. It was suspected to be caused by an unknown organism resembling those in the Chytridiomycota, but it hadn't been confirmed. So, Martin and Stowell coined the name 'rapid blight,' which adequately described the consequences of the disease when it occurred in epidemic proportions.

The working group's first action was to provide funds to support Martin's initial research about disease control. Although the funding was insufficient to support a full-fledged project, the U.S. Golf Association soon provided a substantial grant to Martin's group to support more research. At the same time, Kurt Desiderio, a PACE working group member from Saticoy Country Club, was frustrated by the incomplete control of the disease with mancozeb. Based on

a quick screening trial that he conducted on the golf course, he found trifloxystrobin (Compass) was effective at stopping the disease. This was a surprise because repeated tests with the closely related azoxystrobin (Heritage) had yielded no positive results. But Martin immediately followed up by placing Compass and pyraclostrobin (which was soon to be labeled Insignia) in his next round of screening tests, and Desiderio's observation was confirmed. Trifloxystrobin was the first material shown to be more effective than mancozeb for controlling rapid blight. In 2003, Insignia was labeled for turf disease control and included rapid blight on the label.

IDENTIFYING THE CAUSE

The collaboration among scientists and superintendents received another boost when Mary Olsen, Ph.D., a plant pathologist at the University of Arizona, became involved because of an increasing number of Arizona golf courses that were suffering with the disease on greens, fairways and roughs. Working closely with Donna Bigelow, Dave Kopec and Robert Gilbertson, Olsen initiated lab and field research about rapid blight in 2002. The PACE working group was able to provide some funds to support the research. Olsen's work soon led to the long-awaited identification of the organism and the naming of a new species.

In 2002, Robert Gilbertson, professor emeritus of mycology at the University of Arizona, recognized the spindle-shaped cells in a rapid blight affected rough bluegrass sample from a golf course in central Arizona, similar to those that cause a disease of eelgrass in marine estuaries. The organism causing the wasting disease of eelgrass, *Labyrinthula zosterae*, is a marine slime mold. On the basis of shared morphological characteristics associated with the size and shape of its spindle-shaped vegetative cells and growth characteristics, Olsen and her associates proposed the rapid blight pathogen was a member of genus *Labyrinthula*.

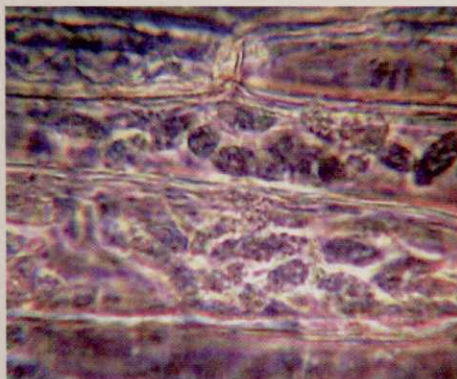
Olsen subsequently was able to grow the cells isolated from diseased turfgrass tissue on an artificial medium developed specifically for *Labyrinthula*. Cells harvested from cultures were used to inoculate healthy *Poa trivialis* and perennial ryegrass. Symptoms identical to those observed in the field developed on all inoculated plants. *Labyrinthula* was then re-isolated from the inoculated diseased turfgrass. This technique of

isolation, pure culture and reinfection is known as Koch's postulates and is considered proof the organism is the true pathogen and cause of disease. Olsen's group named the rapid blight-causing organism *Labyrinthula terrestris*. It's the only *Labyrinthula* known to attack a land plant. All others occur in marine environments.

LABYRINTHULA DESCRIPTION

Labyrinthula has been classified in different ways since it was first described in 1867. It's now placed in the kingdom Chromista (also called the Stramenopiles) with organisms such as diatoms and the Oomycetes (species of *Pythium* and *Phytophthora* are in this group), but it isn't closely related to these organisms.

Labyrinthula terrestris vegetative cells are fusiform, averaging about 6 by 16 μm and usually divide longitudinally. *Labyrinthula terrestris* forms digitate colonies in an extracellular net-



Spindle-shaped cells of the rapid blight pathogen in leaf tissue. Photo: Larry Stowell

work produced by specialized organelles called bothrosomes and can move along these networks at a notable speed. Cells contain various sized vacuoles, numerous lipid droplets and have a central nucleus with a large nucleolus. As cells multiply, colonial networks are formed and expand to as wide as 5/32 of an inch (4 millimeters) in 24 hours on agar culture media. After about a week, the cells migrate into rounded clumped aggregates ranging from 0.1 to 0.5 mm in diameter. Sori or reproductive cells have never been seen.

Given the quick emergence and increasing incidence of rapid blight disease on golf course turf, a full characterization of the pathogen through DNA studies was critical. Paul Peterson, a postdoctoral fellow in Martin's group, collected

isolates of *L. terrestris* from rapid blight-affected turfgrasses from the East Coast and West Coast as part of a USGA assisted, nationwide survey ("Rapid Blight - Disease, Water and Soil Survey") that Martin's group initiated in 2003. In close cooperation with the Fungal Genomics Laboratory at N.C. State University under the direction of Ralph Dean, the rapid blight *Labyrinthula* sp. were found to differ from other described and some undescribed species of *Labyrinthula* such as *L. zosterae*, which causes wasting disease of eelgrass. This work confirmed and supported the original morphological characterization and identification of the rapid blight pathogen by Olsen. Additional gene sequencing to examine genetic diversity among rapid blight pathogens is under way.

CONDITIONS FAVORING RAPID BLIGHT

In most cases, rapid blight has been associated with saline irrigation water and an accumulation of salt in the soil. To further evaluate this relationship, Martin's group sent out a nationwide request to golf courses with suspected rapid blight to submit samples of affected turf, irrigation water and soil for analysis. Evaluation of the samples was carried out as part of the above-mentioned survey, and a database about soil, water and weather parameters associated with disease outbreaks was compiled. Interestingly, in the Carolinas, rapid blight outbreaks occurred concurrent with drought and applications of high salinity irrigation water (greater than 2.5 dS/m or greater than 1,600 ppm). However, on some Western golf courses, the disease might also occur at lower salinity levels (0.5 to 1.5 dS/m or 320 to 960 ppm) based on the survey.

Subsequent greenhouse trials showed that little disease occurred in susceptible perennial ryegrass and Kentucky bluegrass cultivars that received applications of irrigation water less than or equal to 1.3 dS/m. Disease severity increased with increased salinity. Results from Olsen's group were quite similar. Plants irrigated with low salinity water (0.5 dS/m) show no symptoms of disease but become infected. As salinity of the irrigation water increases from 0.8 dS/m to 4.0 dS/m disease severity also increases. Managing irrigation water to reduce salt accumulation in soils is an effective way to reduce rapid blight.

GEOGRAPHIC DISTRIBUTION AND HOST RANGE

Rapid blight was initially identified on golf

IMPACT ON THE BUSINESS

The rapid take on rapid blight

Sanatayana said that those who ignore history are doomed to repeat it. That's why it's enlightening to understand the detective work done by PACE labs and others in the late 1990s to identify the then-unknown pathogen that was eventually identified as "rapid blight."

After nearly a century of scientific research into turfgrass diseases, it's hard to believe that "new" pathogens are still being identified, yet it happens all the time. Now, with the application of genetic mapping and DNA technologies, we could be entering a time when we truly begin to understand the root causes of many diseases that were only vaguely defined previously.

Bentgrass decline and zoysia patch are examples of conditions that eluded us for years and just now are beginning to be understood. Spotting the symptoms is easy. It's finding and managing the actual pathogen that's so difficult.

BUSINESS APPLICATION

As a business issue, battling rapid blight could be a major factor in your fungicide budget. Rapid blight requires some serious treatments that will cost you big bucks if it gets out of hand.

More importantly, this disease mars courses in a way that can't be easily fixed. If you want to avoid ugly-looking spots on your course, preventive applications are key.

FIELD ASSESSMENT

If you manage annual bluegrass, rough bluegrass or perennial rye and you have saline irrigation or soils, you are potentially at risk for rapid blight. The rotation of your disease control tank-mix program will be critical, particularly in mid-spring and early summer.

A standard fungicide mix may not be enough, so make sure to consult with your local technical reps to make the right choice.

FUTURE OPPORTUNITY

Could genetically enhanced, disease-resistant turfgrasses be the answer? Perhaps. With so many chemical companies investing significantly in biotechnology (as opposed to traditional fungicide development), there's no question that resistant species are coming. But "minor" diseases like rapid blight are unlikely to be high on the research priority list, so traditional controls will be needed for the foreseeable future.

"In most cases, rapid blight outbreaks have been associated with saline irrigation water and an accumulation of salt in the soil."

— Larry Stowell



Symptoms of a disease, later identified as rapid blight appearing on bentgrass in Southern California. Photo: Larry Stowell

Research

courses in the United States on annual bluegrass, rough bluegrass and perennial ryegrass. Although the disease has been documented on creeping bentgrass by Martin and Stowell, it has occurred rarely. By 2005, C. A. Entwistle, in cooperation with Olsen, described the disease attacking colonial bentgrass and annual bluegrass golf course greens in the United Kingdom. The report from the U.K. was notable for its northern location. Until then, rapid blight had been isolated only from 11 U.S. states.

Peterson evaluated 49 different cool-season turfgrass species in hopes of identifying specific turfgrass species and cultivars with tolerance to rapid blight. All the grasses examined were susceptible to rapid blight but at markedly varying levels. Mean disease severity levels among the cultivars tested ranged from less than 1 percent to greater than 90 percent. Bentgrasses (colonial & velvet), bluegrasses (annual and rough), most ryegrasses, crested dogstail, hairgrass and

wheatgrasses were susceptible. The grass species most tolerant to rapid blight were the slender creeping red fescues, creeping bentgrasses and some alkaligrasses. Similar results were obtained by Olsen's group in Arizona.

According to Olsen, Bermudagrass shows no symptoms of rapid blight, but in a survey of two golf courses where rapid blight occurred in cool-season grasses used for overseeding, *L. terrestris* was isolated from Bermudagrass roots and stolons during the summer after the cool-season turfgrasses had died out.

The combined observations of these experiments showed several cool-season turfgrasses to be tolerant of rapid blight under conditions of moderately high salinity stress. Some of these grasses might be suitable for overseeding where rapid blight is a chronic problem. In South Carolina, some golf courses are using seed blends of rough bluegrass and alkaligrass with acceptable results. Potential exists for the use of certain

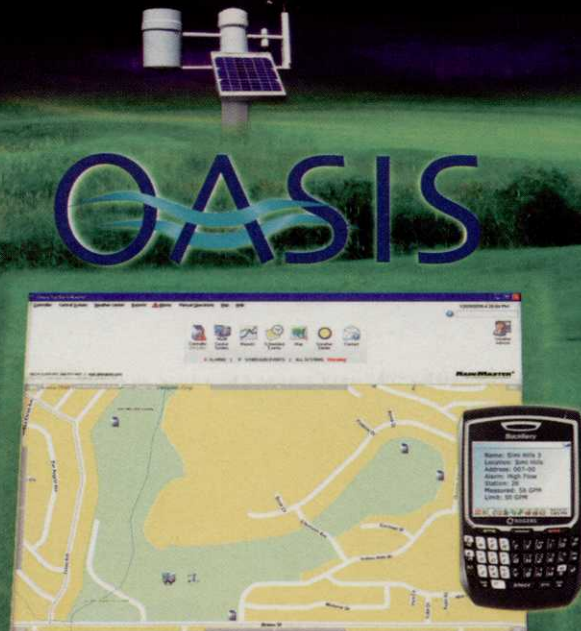
creeping bentgrass cultivars or slender creeping red fescues for overseeding as well, although slow rates of germination and establishment might be complicating factors to consider.

OTHER FACTORS

A thorough knowledge of the biology and lifestyle of a disease organism is helpful when managing and controlling disease caused by that organism. For this purpose, Martin's and Olsen's groups conducted a series of controlled environment experiments to determine the growth characteristics of the pathogen.

In lab studies, Olsen found *L. terrestris* grew well at 15 C to 30 C but grew slowly at 4 C and not at all at 40 C. Peterson found similar results when he evaluated the relative growth of 14 different *L. terrestris* isolates collected throughout the United States under varying degrees of temperature and levels of salinity. Growth parameters were studied and measured on solid

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media. The results of these experiments from Martin's lab indicated that *L. terrestris* grew best in a range between 22 C to 26 C.

L. terrestris isolates grew well over a relatively wide range of salinity levels from 3.5 to 10.5 dS/m. These results suggest that different *L. terrestris* isolates vary in their salt requirements and that East Coast isolates might require higher salinities for optimal growth than West Coast isolates.

Wounding isn't necessary for *L. terrestris* to enter the plant, and *L. terrestris* moves easily from infected plants to noninfected plants when only a few leaves are touching or when plants share common drainage water.

CHEMICAL AND CULTURAL CONTROL

Field trials to determine efficacy of selected chemicals for control of rapid blight have been conducted at several sites. The most effective chemicals for prevention of rapid blight identified so far are pyraclostrobin (Insignia), trifloxystrobin (Compass) and mancozeb (Fore, Protect). Compass or Insignia mixed or rotated with mancozeb gives good control if applied preventively, while curative applications of chemicals might contain the disease but don't eradicate it.

Cultural control requires a variety of strategies including leaching programs to reduce soil salts, but leaching alone isn't sufficient in many cases. For this reason, the selection of rapid blight-tolerant overseeding varieties holds promise. Blending fast-establishing susceptible grasses (rough bluegrasses or moderately susceptible grasses like the perennial ryegrasses) with tolerant grasses (alkaligrasses, creeping bentgrasses and slender creeping red fescues) might help to reduce the risk of devastating epidemics of rapid blight.

COMING AND GOING

If the preliminary results of molecular analysis by Martin's group continue to yield genetic sequence data that lacks variation, there might be a recent common ancestor of the rapid blight pathogens. That ancestor appears to be most closely related to a *Labyrinthula* species that attacks *Spartina alterniflora*, a true grass (family Poaceae) in marine environments. When and how the jump from marine environments to terrestrial plants was made might never be known, but the search for the answer is intriguing and will occupy plant pathologists for years.

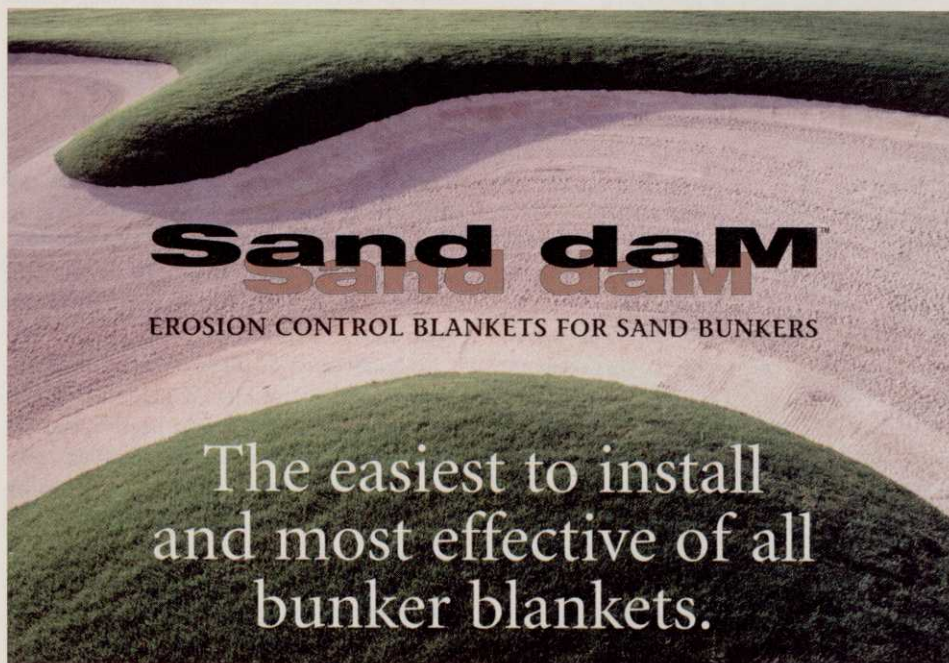
There are many more questions to answer concerning rapid blight and *Labyrinthula* as a plant

pathogen. From what we know, rapid blight affects a broad range of cool-season turfgrasses that show an increased severity of symptoms as soil salinities increase. Soil salinity problems are likely to increase as competition for high-quality water, increased use of recycled water on golf courses and drought conditions occur. As a result, turf managers will need to develop management strategies that cope with the potential for increased rapid blight attacks. In the meantime, a successful integrated approach has

been identified that relies on a combination of cultural practices and chemical control. **GC1**

Larry Stowell, Ph.D. is a research director of the PACE Turfgrass Research Institute, www.paceturf.org, in San Diego.

Literature cited for this article can be found on our Web site, www.golfcourseindustry.com, posted with this article.



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BY HARRY NIEMCZYK, PH.D AND DAVID SHETLAR, PH.D

Head them off

A look at preventive approaches to destructive turf insects

Preventive insecticide programs are implemented based on the theory that one pest or group of pests often is the primary, but not necessarily the only, focus of treatments. This is called the primary target. However, a treatment's impact on other pests causing damage at application time also should be considered.

An insecticide or other form of insect control generally should be applied only when its use is justified. The major justification for implementing a preventive program is a past history of infestation and/or damage and confidence damage will reoccur. Such history is based on previous years' experiences, observations, monitoring and knowledge of the seasonal spectrum of pests.

WHITE GRUBS

In the North, if grubs (black turfgrass *Ataenius*, *Aphodius*, Japanese beetle, masked chafer, European chafer, Asiatic garden beetle, Oriental beetle) are the primary target and a preventive program is selected, early May is the optimal time to apply imidacloprid (Merit) or clothianidin (Arena). In addition to providing season-long

control of these grubs, other secondary pests in the spectrum (billbug larvae, first generation cutworm larvae, and probably greenbug aphids and frit fly) will be prevented. Turfgrass ants (*Lasius neoniger*) also will be suppressed.

However, in June, it's too late to prevent the first generation of cutworms and probably billbug larvae by applying imidacloprid or clothianidin. Billbugs are a significant pest on tee and bunker banks and in roughs. Applications from July to mid-August will prevent annual grubs, including green June beetle, but it's too late to control most other secondary pests in the spectrum during that time.

An application of thianicotinyl, thiamethoxam (Meridian) in May or June or July will preventively control Japanese beetles, masked chafers and BTA grubs. Larvae of billbugs, cutworms, sod webworms and chinch bugs existing during and after the time of application can be controlled, too.

June applications of halofenozide (Mach 2) provide season-long preventive control of BTA and *Aphodius*, Japanese beetle and masked chafer grubs. Control of European chafer and

Asiatic garden beetle is limited. Infestations of billbugs, cutworm and sod webworm larvae existing at the time of application also might be controlled with treatment at this time.

Application of halofenozide from July thru early August may also prevent infestation of grubs, and controls existing infestations of cutworm and sod webworm. Treatments applied from mid-August to mid-September control Japanese beetle and masked chafer and might provide a degree of control of sod webworm larvae that normally overwinter.

ANNUAL BLUEGRASS WEEVIL

Where grubs and annual bluegrass weevil are major targets, a combination of imidacloprid and a pyrethroid insecticide or clothianidin applied from mid- to late April prevents damage from first and second generation annual bluegrass weevil larvae. This treatment also should prevent larval infestations of billbug, BTA, Japanese beetle, masked chafer, European chafer and first generation cutworms.

Where the grub species aren't major targets, an application of the labeled pyrethroid insecticides during the third week of April has prevented damage from annual bluegrass weevil larvae. The principle of this approach is to target overwintered adults as they return to annual bluegrass to begin laying eggs. Timing is critical. However, recent studies have confirmed the existence of annual bluegrass weevil resistance to the pyrethroid bifenthrin on some East Coast courses.

The impact of a preventive program on the spectrum of secondary target pests occurring at



First, second and third instar grubs. The first and second instar larvae are most susceptible to curative controls. Photo: Dr. David Shetlar, The Ohio State University.

Prevention of grub damage can be accomplished with application of an insecticide from early May through mid-July. Photo: Dr. David Shettlar, The Ohio State University.

the time of application hasn't been studied well. However, because these insecticides are labeled for and known to be residually toxic to BTA and billbug adults, larval infestations of these pests also should be prevented.

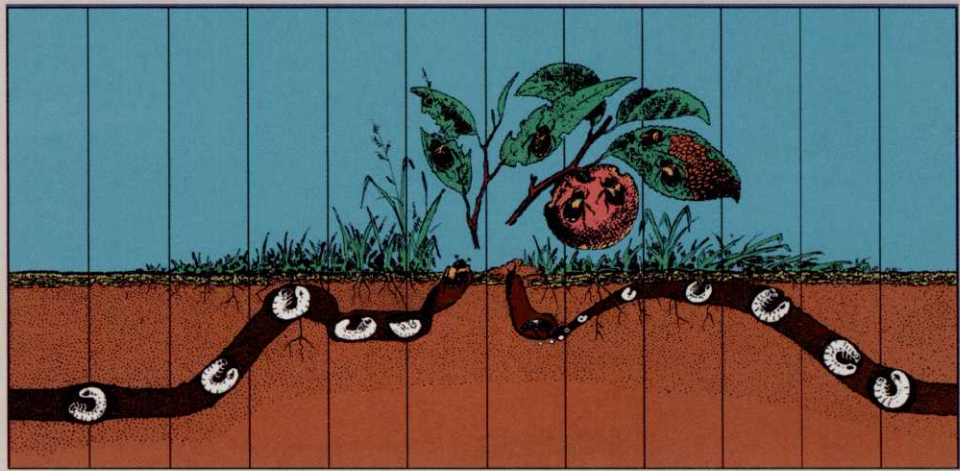
BLACK TURFGRASS ATAENIUS

Where BTA is the only grub of concern, another preventive option has been used successfully. Principle control involves application of chlorpyrifos (Dursban) or a labeled pyrethroid to target overwintering adults just as egg laying begins. In the Northern states, this event coincides with the onset of full bloom of Vanhoutte spirea (*Spirea vanhouttei*), usually early to mid-May. The treatment's objective is to deposit the insecticide into the first 1/4-inch of thatch so residues kills adults as they land on the turf to hide, feed on organic matter and/or burrow to lay eggs. Treatments should be syringed immediately after application to wash the insecticide off the grass blades into the thatch.

A preventive application of imidacloprid, clothianidin or thiamethoxam during the first week of May or halofenozide in early June to control other major grub targets also controls BTA, *Aphodius* and a spectrum of other pests. These insecticides also can be used successfully when BTA is the primary target.

BLUEGRASS BILLBUG

The bluegrass billbug causes significant damage to Kentucky bluegrass and nonendophytic perennial ryegrass around greens and sand bunkers, on tee and green banks, in roughs and turf around the clubhouse. Damage can be as subtle as a chronic thinning of the stand. Symptoms often are misdiagnosed as irrigation not reaching the turf, drought or disease such as dollar spot. If uncontrolled for extended periods, the Kentucky bluegrass portion of a sward continues to diminish. Kentucky bluegrass varieties vary in their susceptibility to this pest.



Applying imidacloprid, clothianidin or thiamethoxam during the first week of May for prevention of major target pests also prevents bluegrass billbug damage.

OTHER PEST INSECTS/CUTWORMS

When cutworms (mainly the black cutworm) are the primary concern, a preventive approach isn't recommended. We discourage adding an insecticide to a treatment of which the objective is fertilization and/or growth regulation and/or disease control just in case there might be cutworms. Instead, we recommend a curative approach and application of a control when evidence of damage first appears.

A program of regularly scheduled applications, beginning when the first eggs begin to hatch and continuing at a 14- to 21-day interval, thereafter, has been shown to prevent damage. Affected larvae die in their burrows, not on the turf surface.

SOD WEBWORM

Generally, sod webworms haven't been considered a pest worthy of concern on golf courses. But based on observations and communication with golf course superintendents from Ohio to Nevada to Florida, they are.

Sod webworm larvae commonly overwinter in greens, practice greens and tees. The overwintered larvae resume feeding in early spring by constructing a C-shaped cover of webbed-together topdressing over its burrow. The sand

cover is just below the turf's mowing level. The larva feeds on the turf under the cover, which is made larger as more food is required. During the summer, more irregular tunnels with covers can be constructed in the turf.

In addition to the sand covers being unsightly and interfering with ball roll, the larvae under them are a major reason for the probing of starlings and other birds in early spring. When necessary, spring damage can be prevented by treating the turf areas of concern with an insecticide from late September to mid-October to kill the larvae that would otherwise overwinter. An imidacloprid application in May for preventive control of grubs or other primary targets hasn't controlled overwintered sod webworms. Application of clothianidin or thiamethoxam has been effective.

MOLE CRICKETS

In the South, the most difficult time to control mole crickets is late fall and early spring when adults are flying to relocate and mate. These adults might burrow deep in the soil profile during cool or dry soil conditions, and therefore, are less prone to feed, which minimizes their exposure to control materials. Little can be done to prevent this movement and damage.

At sporadic times, usually associated with warm and rainy weather, adults move to the surface, tunnel extensively, fly in mass and mate. Research shows moist but not saturated sites with dense turf or weed growth are highly



attractive to spring-active adults. Eggs will be concentrated in such sites.

In spring, areas where mole crickets are most actively tunneling, emerging and digging back into the soil are where most of the eggs will be laid. A visual inspection of each area should allow for easy detection of mole cricket hot spots. With experience, turf managers will learn to differentiate between light, moderate and extensive mole cricket activity.

Constructing maps of each fairway, turf managers should draw rough outlines of areas with extensive mole-cricket tunneling. These high-risk areas will have significant turf loss from mole cricket nymphal populations. Such sites are candidates for preventive control.

Insecticides with moderately-long residual activity (isofenphos and isazofos) can be applied to high risk areas at the beginning of mole cricket egg hatch (usually late May to early June). Because fipronil (Chipco Choice) applied with subsurface placement equipment provides season-long control of hatching mole cricket nymphs, most other preventively used insecticides have lost favor.

However, subsurface application of fipronil appears to have little activity against other soil-inhabiting insect pests of turf. Turf managers using this tactic have experienced increased white-grub damage and damage from animals digging for grubs. Apparently, these grubs were

controlled or suppressed when the more traditional insecticides (isofenphos, isazofos) were used to control mole crickets.

Applied when mole crickets first hatch eggs, surface application of imidacloprid, clothianidin or thiamethoxam adequately prevents mole cricket nymphal damage. The application date varies considerably from South to North where mole crickets are.

For example, tawny mole cricket egg laying might begin as early as late March in South Florida, mid-April in North Florida and early May in South Georgia, with egg hatch occurring about 20 days later. Generally, each major biological event in the life history of mole crickets is delayed one week as one moves 100 miles south to north. Coastal and island areas can vary from this rule.

A single surface application of imidacloprid, clothianidin or thiamethoxam (at the highest label rate) made within the first three weeks of first egg hatch should prevent damage from tawny and southern mole crickets. One of these insecticides, applied within this time period should suppress (if not control) the first new generation of cutworms, fall and true armyworms and tropical sod webworm for 25 to 30 days after application, thereby eliminating the need for a surface insecticide treatment during this time.

Chlorpyrifos, acephate (Orthene) or a regis-

Thinning and damage spots are caused by bluegrass billbugs that prefer the sunny, dry bunker banks of golf courses.
Photo: Dr. David Shetlar, The Ohio State Univ.

tered pyrethroid might be applied to mapped areas that were determined to have considerable adult tunneling activity in April and early May. The insecticide is applied at egg hatch and every three weeks thereafter until egg hatching stops (usually after two to three applications). These applications also will control secondary targets such as cutworm, armyworm and sod webworms but won't control grubs effectively.

Surface applications of fipronil (Chipco Choice) made after egg hatch until the mole cricket nymphs are medium sized have provided good control and also suppresses fire ant populations.

The key to using imidacloprid, clothianidin or thiamethoxam successfully is to determine when mole crickets are ready to lay eggs. This will require weekly sampling of adult mole crickets on the course, starting when spring flights and digging is prevalent.

Turf managers can flush adult mole crickets to the surface using a soap irritant so they can be inspected carefully. They should capture three to five female mole crickets from several locations on the sites that previously were identified as hot spots. With a sharp knife, open the abdomens of the female crickets and look at the developing eggs. If the eggs are flat to slightly oval and are soft and yellow-green, the female isn't ready to lay eggs. If the eggs are rounded, hard and dark yellow, egg laying will occur within five to 10 days.

First egg hatch normally occurs 20 days after egg laying. Again, a soap irritant solution can be used to detect the first instar nymphs.

An April or May application of imidacloprid, clothianidin or thiamethoxam has enough residual efficacy to control secondary pests such as masked chafer or annual species of May/June beetle grubs that appear within 60 to 90 days after the application.

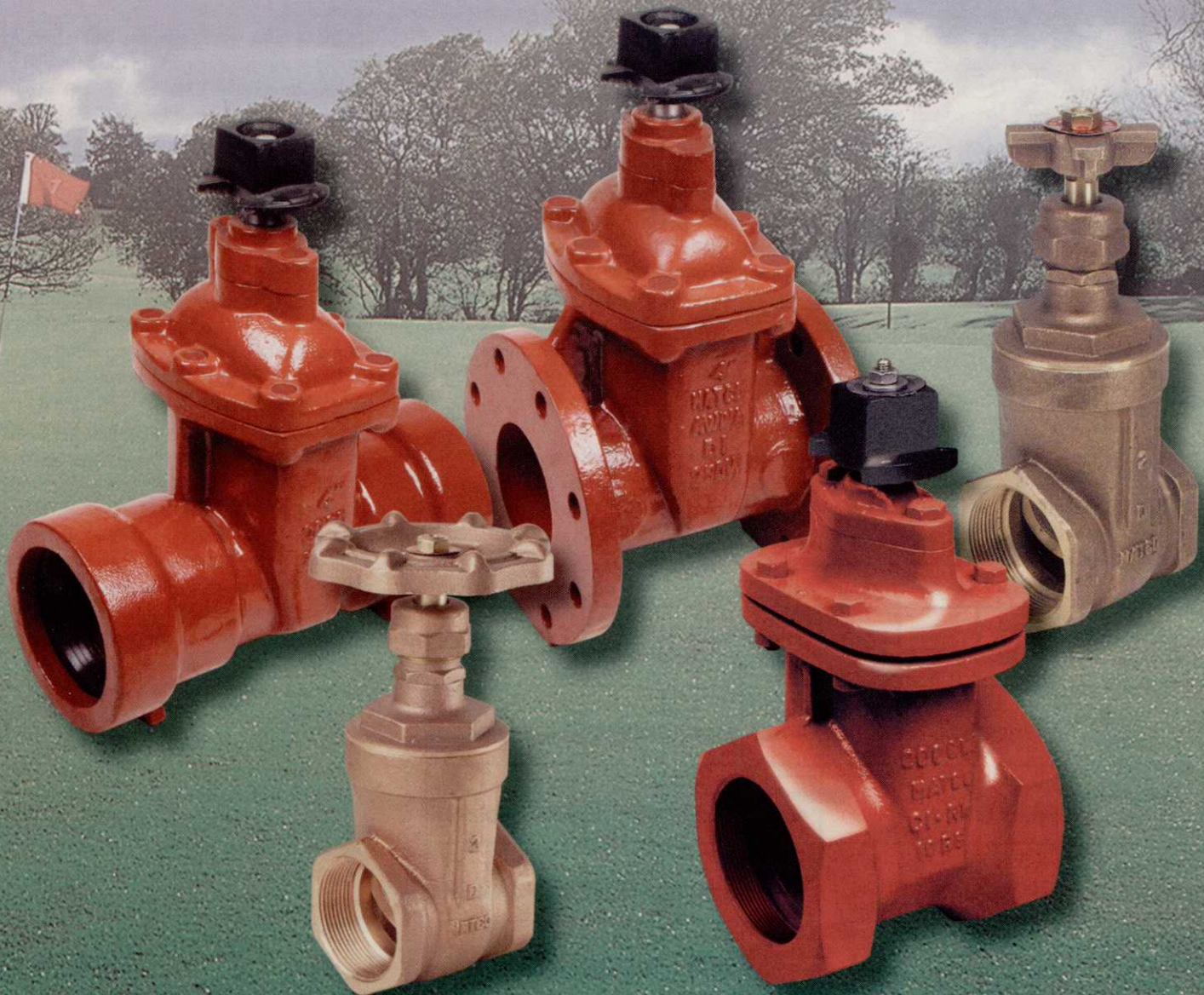
Grub adults that lay eggs in August might not be controlled. Spring applications also appear to control hunting billbug.

The insect parasitic nematodes, *Steinernema*



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Research

scapterisci and *S. riobraevae* have been touted as providing permanent, long-term preventive control of mole crickets. However, these nematodes, while often becoming permanently established in an area, don't produce the desired level of control expected by golf course managers, especially in high maintenance, irrigated turf. The nematodes might be useful in roughs, wetland sites and other lower-maintained turf areas.

GRUBS

If grubs are determined to be the primary target and a preventive program is selected, the first priority is to determine which species or species complex is present.

In many Gulf States, masked chafers and annual forms of May/June beetles are the most common grub pests. In Texas, Oklahoma and the West, the Southwestern masked chafer and annual May/June beetles are the common pests. The adults of these southern grubs usually fly and lay eggs when the rainy season begins or when summer rain fronts pass through.

Flights of the Southern and Southwestern masked chafers are common in late July through August. The May/June beetles fly from May to August, depending on the species. Knowing which species is dominant and when it flies and lays eggs is essential.

May and early June applications of imidacloprid generally provide control of masked chafer

and annual May/June beetle grubs except where the adults delay flight until mid- to late August. This application also should control secondary targets such as mole crickets, cutworms, armyworms, tropical sod webworms and hunting billbugs.

Where green June beetle also is present or late flying masked chafers or annual May/June beetles occur, imidacloprid, clothianidin or thiamethoxam applications should be delayed until mid-July. This treatment will provide season-long control of the grubs and suppress secondary pests such as cutworms, armyworms, tropical sod webworms and hunting billbugs. However, it's too late to provide mole cricket control.

May and early June applications of thiamethoxam or clothianidin should provide control of masked chafer and annual May/June beetle grubs and should also control secondary targets such as mole crickets, armyworms, cutworms, tropical sod webworms and hunting billbug.

June application of halofenozide has been shown to control masked chafer and annual May/June beetle grubs in July and August. Application at this time also will control secondary pests, such as cutworms, armyworms and sod webworms.

FIRE ANTS

Generally, fire ant control requires curative and preventive approaches. Two effective programs have been developed: the two-step and ant-elimination

methods are satisfactory approaches for golf courses.

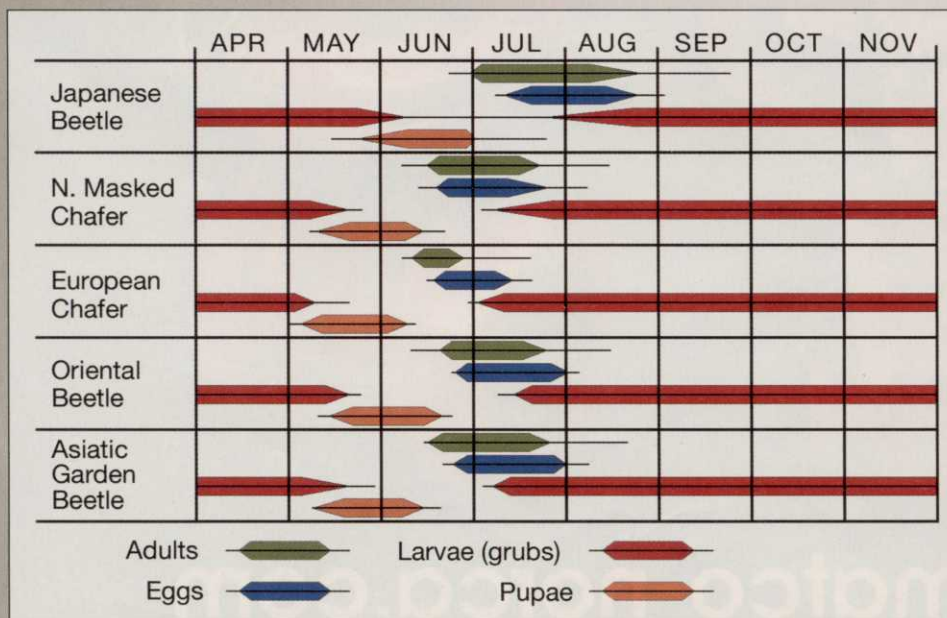
Two-step approach requires an annual or twice-a-year application of a bait-formulated insecticide first applied over the entire turf area. The principle is to allow sufficient time for the fire ant workers to pick up these baits and take them back to the colony for distribution throughout the individuals. Hydramethylnon baits provide control three to five weeks after broadcast, while fenoxycarb baits provide maximum mound control four to nine months after application.

One to three weeks after the bait is broadcast (to allow ants time to pick up the baits and take back to the colonies), the second step is to treat remaining, conspicuous or persistent mounds directly. Persistent mounds can be drenched, dusted, treated with granules, or aerosol injection with one of a range of insecticides registered for this purpose.

Once fire ants in an area have been brought under control, the two-step approach can be used every year to prevent further buildup of new colonies. This is best done by applying the baits in the fall and treating persisting mounds in the spring. If mounding becomes extensive, baits may be reapplied.

The ant-elimination approach is used where fire ants can't be tolerated and requires broadcasting a bait-formulated insecticide and/or spreading granules around individual mounds. After two to three days, a contact insecticide is applied to the entire area every four to eight weeks to kill any foraging fire ant workers. When chlorpyrifos, acephate or a pyrethroid is used, secondary pests such as cutworms, armyworms and sod webworms also will be controlled. If applications are made when mole cricket eggs are hatching, many of the young mole cricket nymphs also will be killed.

The main principle of using fire ant baits is to let the ants have time to pick up the bait and transport it to the nest for further distribution throughout the colony. If transport of the bait to the nest is disrupted by the application of other insecticides, the long-lasting effects normally obtained with baits won't be achieved.



Understanding when grubs lay eggs and early instar grubs begin feeding determines the best time to make preventive applications. Photo: Dr. David Shetlar, The Ohio State Univ.

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OTHER PESTS

Cutworms, common armyworm, fall and yellow-striped armyworm, sod webworm and tropical sod webworm rarely become the primary target of concern on Southern golf courses, therefore, a preventive approach isn't recommended.

We discourage applying an insecticide along with a fertilizer, herbicide and/or disease control as extra insurance to control any larvae that might be present. Instead, we favor a curative approach when evidence of damage first appears.

We suggest using a daily visual monitoring of greens, tees and approaches for early signs of thinning or ragged leaf margins (grass blades often appear white). These are indicators of early armyworm and tropical sod webworm activity.

Regular and persistent bird feeding in an area also is an indication that armyworms or tropical sod webworms are active. It might be advisable to

apply insecticide like chlorpyrifos or a pyrethroid every three to four weeks to prevent armyworm damage. Applications of insecticides for control of armyworms also control other insects present such as fire ants, billbug adults and young mole cricket nymphs.

Damage from hunting and phoenician billbugs commonly is misdiagnosed on Bermudagrass because it resembles damage caused by the disease, spring dead spot and delayed spring green-up. When careful inspection of the turf indicates signs of billbug activity (chewed stolons) or larvae are found, a curative program should be used. If damage is extensive, a preventive approach should be considered for the next season.

Preventive application of imidacloprid, clothianidin, thiamethoxam or halofenozide in May or early June normally will provide sufficient residual effect to kill billbug larvae that

begin feeding in June through August. This approach reduces the population so few larvae will remain to overwinter and cause damage the following spring. Application at this time also will control or suppress mole crickets, grubs and larvae of cutworms, armyworms and sod webworms. **GCI**

Niemczyk is professor emeritus of the department of entomology at The Ohio State University's Ohio Agricultural and Development Center in Wooster, Ohio. Shetlar is associate professor, department of entomology at The Ohio State University, Columbus, Ohio.

This article was excerpted from "Destructive Turf Insects" which is available for purchase in the GCI online book store at www.golfcourseindustry.com.

IMPACT ON THE BUSINESS BY CINDY CODE

Field experience dictates application timing

Controlling insect damage on a golf course is generally not an easy proposition. Balancing when to apply insecticides preventively vs. waiting for a more targeted, curative approach is often difficult to quantify. And, a miscalculation can result in unsightly damage and an angry clientele.

Further muddying the picture is identifying which insecticide, or combination of products, to use to manage undesirable insect pests.

University research certainly goes a long way in providing superintendents with background needed to effectively keep pest outbreaks to a minimum. But trial and error is oftentimes the most comfortable fit for a superintendent once he has lived through a number of seasons and pest cycles.

David Webner, superintendent for Westwood Country Club, Rocky River, OH, says his insect treatment program varies from year to year.

"Right now I'm debating a wholesale treatment for grubs and masked chafers or whether I should spot treat where I've had problems.

I'm still deciding what I'm going to do this year," Webner says. "There's such a cost difference."

Timewise, if Webner's crews spot treat, he says they can finish the job in about five hours. But if he treats greens, tees, fairways – as well as around the fairways – it amounts to about 16 man hours.

"It's more to do with budgets. We're trying to keep it tight," he says. "It may cost us more on the back end. It's a balancing act."

After seven years at Westwood, Webner says he knows the areas of his course that will definitely experience a pest problem. Those spots are always treated preventively.

In Palm Beach Gardens, FL, superintendent Kevin Downing says he is planning three to four applications this year predominantly for grub and mole cricket management. His plan is to increase the number of areas on the course that are treated.

"We'll act more preventively on the fairways and tees for grubs, primarily, and for some increase in

mole crickets," he says of his course, Ballenlesles Country Club. "It's a switch from last year. We continue to evaluate conditions and hot strike areas. Obviously, this program represents more expenditure of finances than last year, but last year we played two months catch-up for areas we didn't pre-treat."

Downing observes that the contingent of year-round residents living in Florida can be more sensitive to the conditions of the course in the off-season. Thirty to 40 percent of Ballenlesles stay year-round.

Financially, preventive treatments will cost about \$50,000, but improved conditions are the end-result.

"We're making these changes based on experience," he says. "It's more involved to pre-treat, but if we have to replace it with sod or treat poor playing conditions, it'll cost money there too."

Both Webner and Downing plan to use two to three different products to manage grubs this year.

Webner says he tries to mix up his product selection from year to year to

vary the mode of action. Sometimes a predominantly grub control product will also provide some first generation control of surface-feeding insects, but generally that's considered a bonus.

Surface-feeders present additional problems. When cutworms, armyworms or sod webworms appear on a handful of greens they're treated right away. "We're not going to wait. At the first sign of damage we treat and repeat as necessary," Webner says.

Product choice is a continual process that's always under evaluation, according to Downing. He advises assessing new single or combination products on a test area first before widespread use.

Downing says he generally treats for grubs once a year unless he's working in a curative situation. Surface-feeders, on the other hand, are tackled two to three times a year.

Both superintendents say they review university research for timing recommendations and product efficacy results, but there's nothing better than on-the-job experience to keep one step ahead of the pest.

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BY JOHN WALSH

With them in mind

A superintendent lets distributors know about his pesticide program ahead of time to ensure timely delivery and savings

Presently, Troy Golden might be a golf course superintendent, but he once was a sales representative distributing turf products to golf courses. That experience influences the way Golden purchases pesticides for the course he maintains, the public 18-hole Wilcox Springs Golf Course in Haslet, Texas.

The family-owned public course, which features common Bermudagrass on the fairways and Tifgreen (328) on the greens, has been open since 1968. Golden, who has been there for five years, has a staff of four during the winter and six during the summer. His maintenance budget, including labor, is \$450,000. Sans labor, it's \$313,000. Last year, Golden spent \$67,000 on pesticides and fertilizer (\$35,000 on pesticides alone). Generally, he says he has increased the pesticide budget about 3 percent every year for the past five years.

"More and more, I'm buying generic pesticides," he says. "Mainly thiophanate-methyl and chlorothalonil products."

Golden also buys and uses name brand products such as Barricade, Scimitar, Talstar, Daconil, TopChoice, Ceasefire, Merit, Mach 2, Eagle, Cleary's 3336 and Revolver.

APPLICATIONS

As part of Golden's overall pesticide program, he uses Mach 2 (halofenozide) for grub control and Scimitar (lambda-cyhalothrin) for

cut worms and other common insects. He also uses Ceasefire (fipronil) for fire ant control.

"It's a must down here," he says about the fire-ant-control product. "It's about one-third of my pesticide budget. It's our biggest pest to battle, but we have good success with the products we use."

Golden applies Ceasefire wall-to-wall twice a year – once in the spring and once in the fall. He follows those applications with TopChoice (fipronil) as needed around tees and greens.

Golden applies Mach 2 in spring at the end of April or first of May. He says Mach 2 has good residual and one has several months to reap the benefit, but with Merit, one has to hit a shorter window. Then he sprays three products in rotation during the summer: Scimitar, Talstar (bifenthrin) and Insecticide III (chlorpyrifos).

"I try to rotate the different chemistries," he says.

Golden doesn't use a lot of insecticides

during the fall, but uses Talstar during that time for cutworms and chinch bugs.

Because Golden has a limited budget, he says he combines a preemergent herbicide with a granular quick-release fertilizer during the last week of February or the first week in March. He uses Team Pro (benefin and trifluralin) because it's cost effective – even though he doesn't get as long a residual that he would with Barricade or Ronstar – as a granular for weed control in the early spring to give him 60 days control. Then he applies Team Pro again, a split rate with fertilizer to give him residual control heading into the summer.

About that time, Golden also applies a 2,4-D and MSMA tank mix to control broadleaf weeds and dallisgrass through the summer. During the last week of August, he applies more fertilizer with pendimethylin, and that starts his fall preemergent program. About the first of November, he sprays Scimitar and Revolver (foramsulfuron). In the dead of winter, he applies Roundup (glyphosate) wall to wall sometimes.

In the fungicide realm, Golden uses Cleary's 3336 (thiophanate-methyl) and Daconil (chlorothalonil) for turf diseases, and Eagle (myclobutanil) for, more specifically, spring dead spot. In the spring, he uses Cleary's 3336 and rotates that every 30 days with Daconil through early summer. Then

"You can save money by not putting a distributor in a bind in which he has to jump through hoops."

– TROY GOLDEN

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PESTICIDES

Troy Golden's maintenance budget, including labor, is \$450,000.

Last year, Golden spent \$67,000 on pesticides and fertilizer.

Golden has increased his pesticide budget about 3 percent each year for the past five years.



Superintendent Troy Golden gives the two or three distributors he works with a copy of his pesticide program so they know what he needs and when he needs it.

he sprays Rubigan (fenarimol), once in August and once in September, for *Poa annua* control and Eagle for spring dead spot. During the winter, Golden applies Daconil or Cleary's 3336 on an as needed curative basis.

PURCHASING

Before Golden purchases anything, he sets his agronomic program by the first of the year. Then he lets the two or three distribu-

tors he uses know what he'll need when throughout the year. He pays as he goes.

"I've been doing this same process for a while," he says. "You can lock in pricing. It's good because it's done and out of the way. It solves delivery problems and lets the distributors know where they stand. It helps build better relationships. I get better service because the distributors know what to give me ahead of time.

"When I talk to distributors in January

about the year, I'll give them a copy of what I'm doing so they know when to deliver the products," he adds. "I know a lot of guys don't do that because they don't like showing people their plan. A lot of guys will call and say, 'I need a preemergent herbicide in two weeks,' but they don't know what it takes to get the product there. You can save money by not putting the distributor in a bind in which he has to jump through hoops." **GCI**

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BY JOHN WALSH

The sooner the better

A superintendent in North Carolina takes advantage of ordering pesticides early

The gist of the familiar saying “the early bird gets the worm” can be related to ordering and purchasing pesticides. For some, ordering products late in the year for use the following year can save money and ease pressure on one’s budget.

Michael Haq, golf course superintendent at the private 18-hole Brier Creek Country Club in Raleigh, N.C., does just that. Haq, who has been at Brier Creek for two years, has a maintenance budget of just more than \$1 million, including labor. His chemical budget, not including fertilizer, is \$65,000.

“We are owned by Toll Brothers so cash

flow isn’t a huge issue, and we can take advantage of early orders,” he says.

Haq makes bulk purchases in November and December, the majority of which are fungicides and plant growth regulators. He doesn’t purchase a lot of insecticides and buys herbicides and insecticides as needed. He treats the entire golf course twice a year, then focuses on the four acres of greens during the year.

“We’re not in a real high disease-pressure area,” he says.

The course features A-1 and A-4 bentgrass greens, Bermudagrass tees and fairways, zo-

ysiagrass bunker faces and tall fescue rough.

PURCHASING VALUE

Purchasing many of his fungicides early before a new year begins saves Haq a considerable amount of money. The total value of his early order purchase was \$22,000 this past year. The biggest chunk outside that savings is the \$20,000 of Rubigan he purchases.

When purchasing pesticides, Haq works with just a couple distributors.

“We have a couple of national accounts, and we bid to them,” he says. “This year, we got everything from one distributor, but last



Second assistant Jon Stephens, left, and third assistant Brian Brister in the chemical room at Brier Creek Country Club in Raleigh, N.C. Photo: Brier Creek Country Club



From left, senior assistant Rob Knott, golf course superintendent Michael Haq and golf professional Mark Johnson. Photo: Brier Creek Country Club

Michael Haq's chemical budget, not including fertilizer, is \$65,000 a year.

The total value of Haq's early order purchase was \$22,000 this past year.

Ninety-five percent of Haq's chemical budget is for spring dead spot, greens and preemergent herbicides.

year, I split the purchase 50/50 between the two."

The products he uses – other than what he orders through the early order program – are common and in stock so he has no problem ordering those right before he needs to apply them.

"I can get them in a day or two," he says. "There are a lot of distributors looking for a bite out of the same pie."

But the key to being effective with an early order program is knowing how much one is going to use during the year, Haq says.

"It's worse if you order too much rather than too little," he says. "In most environments, being overbudget is more of a cardinal sin than having an underconditioned golf course. For us, it's easy to predict what we will use each year: 95 percent of the chemical budget is for spring dead spot, greens and preemergent herbicides."

PROGRAM SPECIFICS

Haq is on a preventive program and hasn't seen much disease lately on his greens, but

pythium volutum is his primary concern. On the Bermudagrass, he sprays the fairways, tees and approaches in the fall with Rubigan (fenarimol) for spring dead spot because there's a lot of it.

"I'm not sure why, but N.C. State is doing research on that subject," he says.

In the spring, Haq sprays Insignia (pyraclostrobin) for pythium volutum. In the middle of June, he applies a Chipco Signature (fosetyl) and Daconil Ultrex (chlorothalonil) mix, and another application during the third week of June if disease pressure remains. At the end of June, he applies Chipco 26GT (iprodione) and Daconil Ultrex. The first week of July, he applies Clearly's 3336 (thiophanate-methyl) and Banol (propamocarb), and, depending on disease pressure, might make another application in the middle of July. At the end of July, he applies another Signature/Daconil mix. During the first week of August, he applies 26GT and Subdue Maxx (mefenoxam). In middle of August, he applies Signature and Daconil Ultrex and then monitors the weather. If it's hot, he'll apply

Clearly's 3336 and Daconil Ultrex.

"By September, I won't make any preventive applications," Haq says.

In the middle of October or early November, he applies Signature again.

Haq says he doesn't apply many pesticides throughout the winter because he doesn't have snow mold problems.

In the insecticide realm, Haq will make two applications of a generic Bifenthrin Pro a year for cut worms when aerifying in March and September.

"We have trees but not many," he says, explaining one reason why insect pests aren't much of a problem. "We're almost immune to fall armyworms."

Regarding herbicides, Haq sprays Ronstar (oxadiazon) and Roundup (glyphosate) in February as a preemergent for summer weeds. All other herbicide applications depend on the time of year. Nutsedge is a problem, and Haq applies Certainty (sulfosulfuron) for that. However, he doesn't have a huge broadleaf weed problem but will use Speed Zone (carfentrazone-ethyl) when needed. **GCI**

Enforce insecticide

- Delivers protection against grubs, mole crickets, billbug larvae, annual bluegrass weevil, cutworms, chinchbugs and European crane fly
- Best used as a preventive application before egg lay
- Offers curative action through the second instar

Advan

[#200](http://golfcourseindustry.com/readerservice)

Enforce™

TURF AND ORNAMENTAL INSECTICIDE

Velocity herbicide

- Postemergence herbicide that controls *Poa annua*, *Poa trivialis* and certain broadleaf weeds in established bentgrass fairway turf
- Suppresses seedhead production of *Poa annua* and *Poa trivialis*
- Contains the active ingredient Bispyribac-sodium
- Has a wide window of application
- Available as an 80-percent soluble powder, packaged in 2-ounce water soluble packets

Valent Professional Products

[#224](http://golfcourseindustry.com/readerservice)

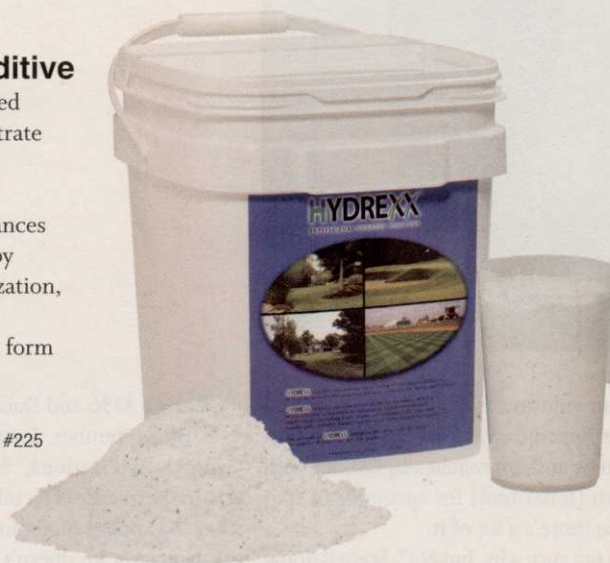


Hydrex soluble additive

- Dry soluble additive for melted urea and urea ammonium nitrate formulations
- When mixed with urea and urea-based fertilizers, it enhances the fertilizer's performance by preventing ammonia volatilization, leaching and denitrification
- Nitrogen remains in a usable form for as long as 16 weeks

Agrotain International

[#225](http://golfcourseindustry.com/readerservice)



Arena insecticide

- 0.25G granule form
- Controls white grubs, chinch bugs, billbugs, Black turfgrass *Ataenius* and sod webworms
- Contains the active ingredient clothianidin
- Formulation is less concentrated so users can spread more granules and achieve more accurate and consistent coverage

Arysta LifeScience

[#201](http://golfcourseindustry.com/readerservice)

Arena™

Putting You In Control™

Salute turfgrass conditioner

- Dry water-soluble combination of potassium silicate, humic acid, fulvic acid, kelp, saponins and a proprietary blend of amino acids, beneficial bacteria and simple sugar
- Designed for use in spray systems
- Helps to increase turf-wear tolerance, enhance ball roll and facilitate uniform cutting of turfgrass
- Tank-mix compatible with most pesticides, fertilizers and micronutrients
- Packaged in half-pound water-soluble packets

Becker Underwood

[#202](http://golfcourseindustry.com/readerservice)



Trinity fungicide

- Member of the demethylation inhibitor (DMI) class of chemistry
- Offers preventive and curative control of patch diseases, anthracnose, dollar spot and pink and gray snow mold
- Can be used in rotation with non-Group 3 DMI fungicides

BASF

[#226](http://golfcourseindustry.com/readerservice)

Trinity™

FUNGICIDE

Carryall Turf 252 utility vehicle

- Includes the IQ Plus electric drive train
- Powered by an 11.5-hp gas engine
- Features a rustproof aluminum frame, chassis and cargo box
- Self-adjusting rack-and-pinion steering
- ArmorFlex front body offers fade-resistant color

Club Car

[#203](http://golfcourseindustry.com/readerservice)



Golf cart climate control system

- Air-conditioning and heating system for golf carts
- Converts between heating and cooling with the flip of a switch
- Uses ice to produce cool air
- Includes sanitary beverage storage
- Botanical scents are designed to improve golfing experience

Coolwell

[#204](http://golfcourseindustry.com/readerservice)



Provaunt insecticide

- Provides effective control to multiple types of caterpillars, mole crickets, annual bluegrass weevil larvae (curative application), European crane fly larvae, potato leafhopper, grasshoppers and European pine sawfly
- Contains the active ingredient indoxacarb
- Has an ideal environmental and toxicological profile
- Classified as a reduced-risk active ingredient by the EPA

DuPont

[#206](http://golfcourseindustry.com/readerservice)



www.divotdog.net

"The Golf Course's Best Friend™"



Divot filling tool

- Designed to save time and labor
- Includes refillable canister
- Pushing the spring-loaded release drops fertilizer and seed mix into the divot
- Amount of material released depends on the pressure applied

Divot Dog

[#205](http://golfcourseindustry.com/readerservice)



AquaSpy turf probe

- Soil moisture monitor
- Ideal for monitoring the effects of surface watering on shallow rooted plants
- Available in two models: 6 inches long with three sensors and 12 inches long with six sensors
- Fully sealed, waterproof and maintenance free
- Promotes stronger root growth

GolfLinx

[golfcourseindustry.com/readerservice #207](http://golfcourseindustry.com/readerservice/#207)

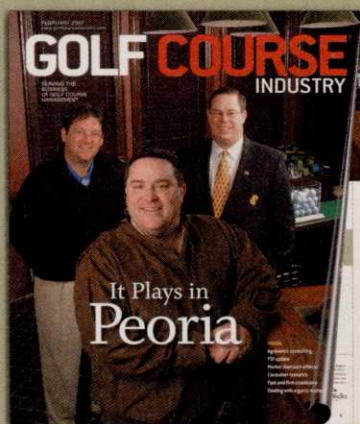


Eclipse 122F greens mower

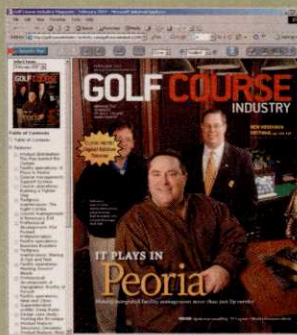
- Features a floating-head design
- Available with separate, adjustable settings for reel and mow speeds on an LCD screen
- Operators can set frequency of clip to match the situation
- Includes four rolling surfaces to reduce ground pressure

Jacobsen

[golfcourseindustry.com/readerservice #208](http://golfcourseindustry.com/readerservice/#208)



FLIP FLIP



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2653B trim and surrounds mower

- Traction system provides flow equally to each wheel motor, reducing slippage and improving hill climbing
- Redesigned operator station provides easier access to operator controls, better access on and off the machine and more leg room

- One-piece hood offers access for daily maintenance
- On-board diagnosis is possible with the WhiteBox controller and sit-on-seat-diagnostics
- Comes with a two-post, roll-over-protection structure

John Deere

[#209](http://golfcourseindustry.com/readerservice)



I-Five rotary mower

- Five-gang rotary ride-on mower
- Features five 26-inch rotary cutting decks for 109 inches of cutting width
 - Two outermost decks fold up for a transport width of 75 inches

- Cutting decks allow three-axis rotation
- Designed for scalp-free mowing
- Powered by a 60-hp Kubota engine

National Mower

[#210](http://golfcourseindustry.com/readerservice)

On in Regulation.



GCI Online contains hundreds of up-to-date Material Safety Data Sheets (MSDS) labels all available with a click of your mouse, ensuring you have the proper paperwork for on-site materials application.

www.golfcourseindustry.com/msds

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Improved Playability
Great Looking Turf

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Dump body mini utility vehicle

- Includes heavy-duty spray-on bed liner
- Dimensions of dump bed are 89 inches long, 54 inches wide and 13 inches high
- Features a 75-amp circuit breaker that can reset, a hydraulic recovery tank, audible tilt and drop down warning buzzer, automatic shut down tilt switch and safety inspection bar
- Dump capacity is 1,000 pounds
- Bed extends 45 degrees

Mag International

golfcourseindustry.com/readerservice #227



Roots Fe Chelate fertilizer

- Water-soluble iron chelate
- Provides 18-percent concentration of fully chelated iron in a highly soluble form
- Offers quick visual response without rapid growth
- Works to improve plant color but doesn't harm or stain other surfaces
- Packaged in 1.5-pound solupaks

Novozymes Biologicals

golfcourseindustry.com/readerservice #211

CocoFlex ET-FGM growth medium

- Extended-term flexible growth medium
- Made of long-strand wood, coconut and crimped interlocking man-made fibers, as well as performance-enhancing additives
- Requires no cure time
- Provides slope protection
- Features a 1,500-percent water-holding capacity

Profile Products

golfcourseindustry.com/readerservice #212



Public Course.

Get on course by visiting GCI Online's FREE Message Board. Interact and get answers to your questions from your peers and our editorial staff who frequently stop by to join the discussions.

www.golfcourseindustry.com/messageboard

Eagle 351B rotor

- Designed for short-throw applications
- Powered with rugged gear drives and a nozzle design for controlled and uniform precipitation
- Has an 18- to 55-foot throw radius and operates at a pressure level from 60 to 90 psi
- Provides full-circle and part-circle applications, reducing inventory requirements
- Includes adjustable left- and right-side trips

Rain Bird
golfcourseindustry.com/readerservice #213

Oasis central irrigation software

- Features visual positioning, imaging and mapping
- Provides a way to locate infield controllers, weather stations or other devices using zoom features
- Allows the user to highlight any controller and launch programming screens, view alerts or use the integrated notepad

Rain Master
[#214](http://golfcourseindustry.com/readerservice)



X2 Golf personal transporter

- Adaptation of the original model features self-balancing technology
- Includes a golf-bag carrier, scorecard holder and an accessory bar
- Smooth tires and small contact patch with the ground make it turf friendly
- Includes LeanSteer technology, which allows the rider to lean in the desired direction
- Maximum speed is 12.5 mph

Segway
[#217](http://golfcourseindustry.com/readerservice)



Paspalum turfgrass

- Low-growing, rapidly spreading semidwarf variety
- Can be used on tees, fairways, roughs and greens
- Is salt tolerant and can tolerate most types of alternate water sources
- Often requires less nitrogen and water than other warm-season cultivars
- Does well in cool weather

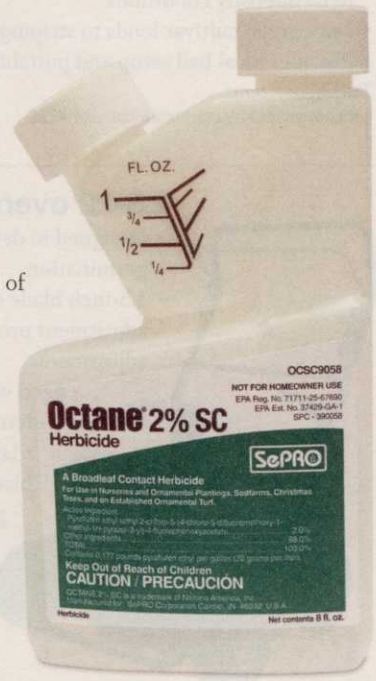
Sea Isle Supreme
[#216](http://golfcourseindustry.com/readerservice)



Octane herbicide

- Contains active ingredient pyraflufen ethyl, which when added as a tank-mix with postemergent broadleaf weed herbicides, increases the speed of kill
- Visual herbicidal results are evident within 24 to 48 hours of application
- Gentle on desirable turfgrasses
- Low water solubility and vapor pressure limit its potential off-target movement to sensitive sites
- 2 percent SC

SePRO
[#218](http://golfcourseindustry.com/readerservice)



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www.golfcourseindustry.com/product

Meridian insecticide

- Registered for commercial and residential use on turf
- Controls a spectrum of soil and foliar pests with a wide application window
- Features preventive and curative properties
- Product is suitable for use on trees and shrubs and has a reduced need for watering in after application
- Insects controlled include soil pests such as billbugs, white grubs, Japanese beetles, oriental beetles, and European, Southern and Northern masked chafer; and foliar pests such as aphids, whiteflies, mealybugs and leafhoppers
- Offers control of ants and other insect pests of trees and shrubs

Syngenta
[#219](http://golfcourseindustry.com/readerservice)



Pro Core processor

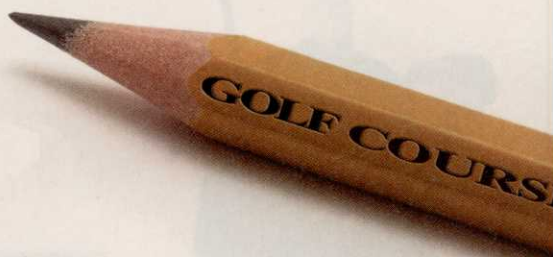
- OnePass hitch attaches processor behind three-point aerator
- Powered by a 35-hp Briggs Vanguard engine
- Features a 70-inch processing width

- Full rear roller smoothes turf and eliminates tire tracks on cores or freshly aerated turf
- Carbide tip blades process material into fine particles for even and thorough distribution
- Optional tow hitch allows for operation behind any tow vehicle or tractor

Toro
[#220](http://golfcourseindustry.com/readerservice)



Lower Your Handicap.



GCI Online helps you overcome daily challenges with business resources for maintaining your course at the highest level. Application schedules, newsletter articles, and budget and personnel forms are just a few of the tools you'll find to help you with your daily tasks.



www.golfcourseindustry.com/tools/businessforms

Platinum TE paspalum turfgrass

- Exhibits high salt tolerance and proven performance with proper management
- Demonstrates general foliar disease resistance
- Fine leaf blade and tight internode spacing create a compact canopy surface
- Features growth performance and sustainability, even in low-light-intensity conditions
- Dark green cultivar lends to striping capability
- Provides ideal ball setup and puttability



Turf Ecosystems
[#222](http://golfcourseindustry.com/readerservice)

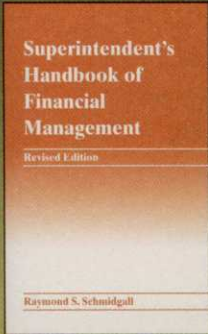
LS-22 overseeder

- Designed to deliver maximum seed germination
- 1.5-inch blade spacing and microscrew depth adjustment provides quick, accurate blade adjustments
- Seed window allows the user to reference seed levels
- Lower spring tension in the blade clutch bail reduces the hand pressure required for operation
- The most often-used controls are on the handle within easy reach of the operator



Turfco
[#221](http://golfcourseindustry.com/readerservice)

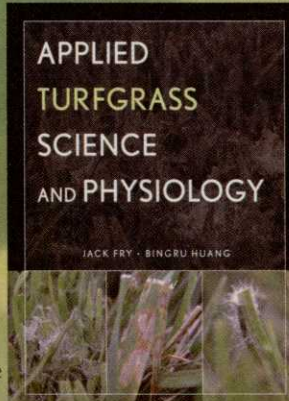
INDUSTRY RESOURCES



Superintendent's Handbook of Financial Management, Revised Edition

\$45
Raymond S. Schmidgall
ISBN: 0-471-46319-1. Hardcover,
176 pages, October 2003

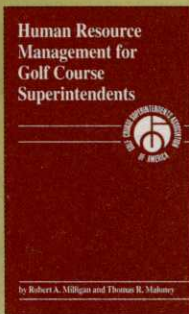
The key to any successful business is the effective management of revenue, costs and of course profitability. This book provides golf course superintendents with the necessary tools to manage their daily financial operations by explaining basic accounting principles such as pricing, budgeting, cost control, payroll and cash flow.



Applied Turfgrass Science and Physiology \$80

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

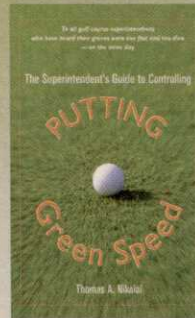
Applied Turfgrass Science and Physiology illustrates topics with research results from peer-reviewed scientific journals to provide insight into how principles and techniques work in real-world practice. Case studies help reinforce material for students as well as professionals seeking to advance their careers.



Human Resource Management for Golf Course Superintendents

\$40
Robert A. Milligan, Thomas R. Maloney.
ISBN: 1-57504-038-7. Hardcover,
192 pages, July 2002

Every aspect of golf course management is covered. Learn how to improve your planning abilities, build leadership and communication skills, maximize employee performance, select and train new employees, and conduct employee performance evaluations. Using the principles in this book will help you effectively manage any golf facility.



The Superintendent's Guide to Controlling Putting Green Speed

\$65
Thomas Nikolai
ISBN: 0-471-47272-7, Hardcover, 160 pages,
October 2004

It is critical for golf course superintendents to know the factors that impact green speed. This book covers every aspect of green speed maintenance including playability, environmental considerations, mowing and pest management. It also provides practical decision-making advice relative to financial and budgeting issues.

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This year, *Golf Course Industry* is publishing feedback from golfers throughout the United States. We're conducting this research to establish a dialogue between the professional community and golfers. On this page, we'll report trends, likes/dislikes, suggestions and other information we gather through our face-to-face, Web-based and phone research.

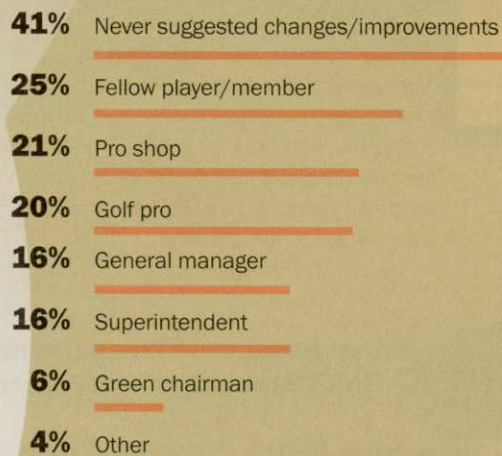
The lines are open

Communicating with golfers is a popular topic among golf course superintendents. During educational sessions and seminars throughout the country, speakers and superintendents have stressed the importance of managing golfer expectations. Communication is necessary to do that, and is probably more common at private clubs than public golf courses. For many superintendents, it's the most difficult and least desirable part of their job.

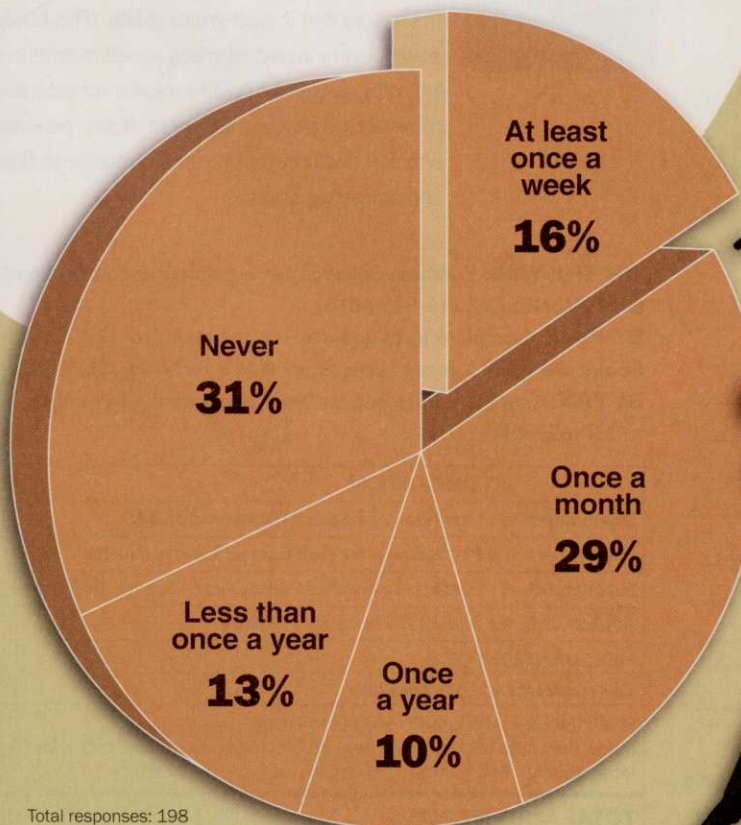
But communication is supposed to be a two-way street, so to speak. We asked golfers about communicating with golf course maintenance professionals and other golf facility managers. Below are charts that show how often golfers approach a golf course manager and shed light on how important they view talking to you.

A random sample of golfers throughout the country were surveyed by InsightExpress, a market research company. Golfers surveyed play at least five rounds a year.

Have you discussed any changes (improvements) you would like to see at the course you most frequently play golf? If so, with whom?



Total responses: 198 Source: GCI research

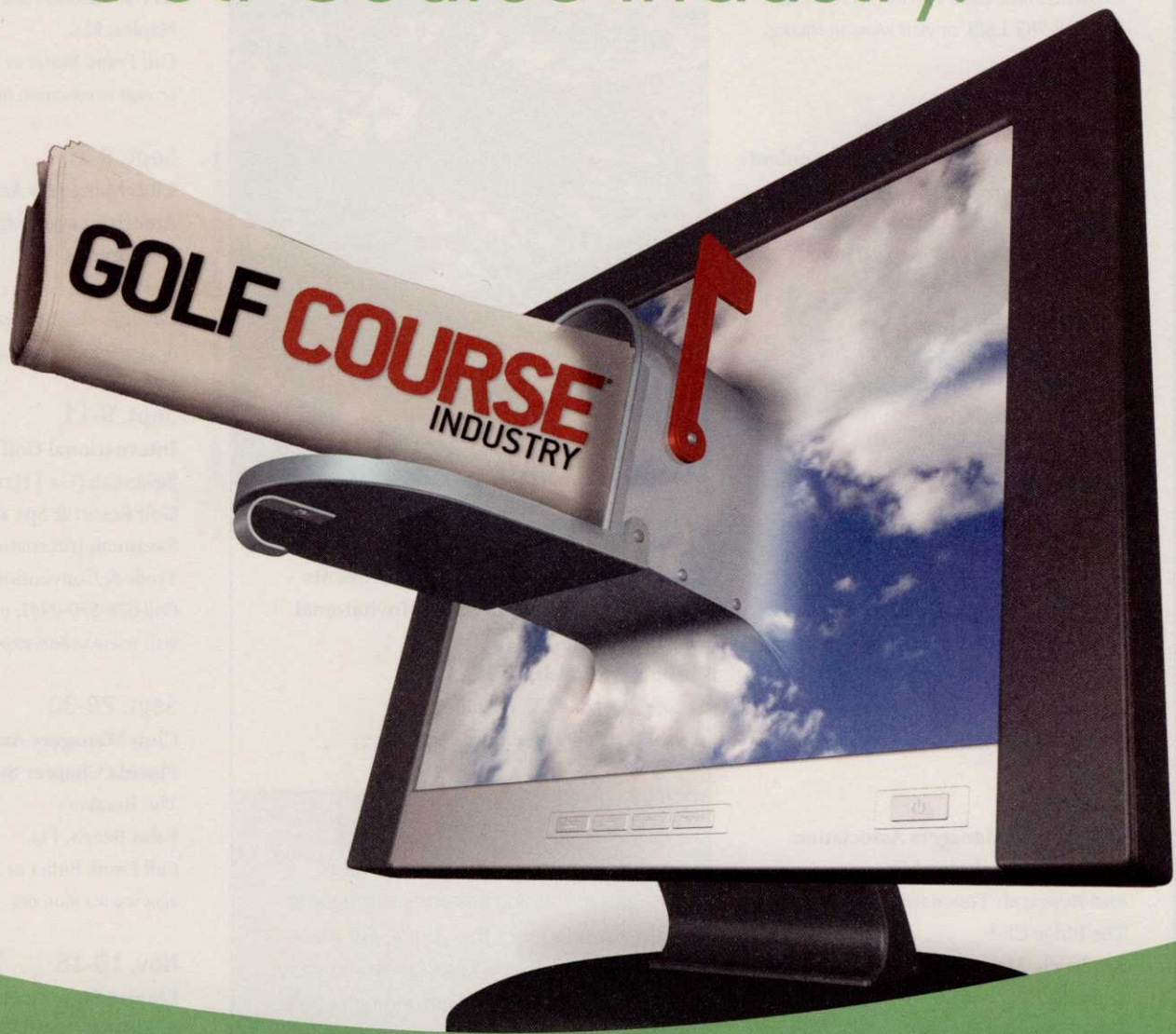


Total responses: 198
Source: GCI research

How often do you talk with the golf course superintendent or other maintenance professional at your primary course?



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March 27

New York State Turfgrass Association
Adirondack Regional Conference
Crowne Plaza Lake Placid (N.Y.) Resort
Call 518-783-1229, or visit www.nysta.org.

April 24

Hi-Lo Desert chapter of the
California Golf Course Superintendents
Association meeting and golf outing
Palm Desert (Calif.) Country Club
Call Cynthia Neal at 866-820-3169.

April 26

Golf Course Managers
Association of Cape Cod meeting
Crosswinds Golf Club
Plymouth, Mass.
Call 866-422-6222, or
visit www.gcmacc.com.

April 27-May 2

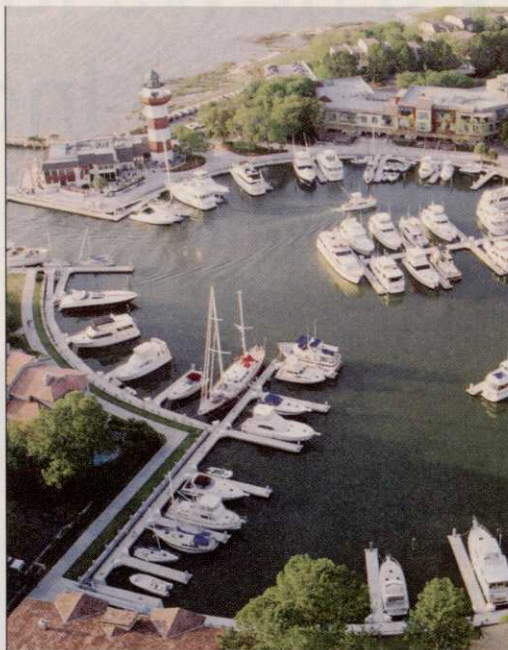
American Society of Golf Course
Architects annual members meeting
The Westin Buckhead
Atlanta
Call 262-786-5960, or visit www.asgca.org.

May 21

Golf Course Managers Association
of Cape Cod Scholarship
and Research Tournament
The Ridge Club
Sandwich, Mass.
Call Julie Heston at 866-442-6222,
or visit www.gcmacc.com.

May 31-June 3

Club Managers Association of America
Florida Chapter Summer Conference
The Shores Resort & Spa
Daytona Beach, Fla.
Call Frank Butler at 561-333-7006,
or visit www.cmaa.org.



Courtesy of the Hilton Head Island Visitor & Convention Bureau

July 23

Carolinas Golf Course Superintendents
Association Superintendent Invitational
Oldfield Club
Hilton Head Island, S.C.
Call 800-476-4272, e-mail
info@cgcsa.org or visit www.cgcsa.org.

Irrigation training

Rain Bird is holding several golf
irrigation training sessions throughout
the remainder of the spring. For more
information about a session listed below,
visit www.rainbird.com/training or call

800-498-1942.

Idaho Falls, Idaho

March 19-23

Renton, Wash.

March 27-29

Boston

April 3-4

Aug. 5-8

Club Managers Association of America
Florida Chapter Summer Conference
La Playa Resort & Spa
Naples, Fla.
Call Frank Butler at 561-333-7006,
or visit www.cmaa.org.

Sept. 8-10

Club Managers Association of
America Leadership/Legislative
Conference
New York
Call Kim Pasquale at 703-739-9500,
or visit www.cmaa.org.

Sept. 9-11

International Golf Gathering
Savannah (Ga.) Harbor
Golf Resort & Spa and
Savannah International
Trade & Convention Center
Call 678-370-0341, or
visit www.urban-expo.com.

Sept. 28-30

Club Managers Association of America
Florida Chapter Summer Conference
The Breakers
Palm Beach, Fla.
Call Frank Butler at 561-333-7006, or
visit www.cmaa.org.

Nov. 13-15

Empire State Green Industry Show
Rochester (N.Y.) Riverside
Convention Center
Call 518-783-1229, or visit www.nysta.org.

Contact **Heather Wood**, Web
editor, at hwood@gie.net or
800-456-0707 to submit information
about conferences, Web sites, books,
DVDs, CDs and other types of resources.



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Your work results in more available oxygen and fewer allergens, noise reduction and lower cooling bills, thicker turf that filters pollutants and landscapes that increase property values. There are endless environmental, economic and lifestyle benefits that green spaces provide—yet consumers don't know about them. They don't understand the true value of your products and services.

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To make a contribution or find out more, call 877-758-4835 or visit www.projectevergreen.com.



Terry Buchen, CGCS, MG, is president of Golf Agronomy International. He's a 38-year, life member of the GCSAA. He can be reached at terrybuchen@earthlink.net.

Positive ID

The Lakewood Country Club in Rockville, Md., was completely renovated about two years ago under the watchful eyes of Christopher Ayers, CGCS, and Mark McGreevy, assistant superintendent.

An extensive subsurface drainage piping system was installed throughout the course, and the outfall drains became clogged and were hard to find. McGreevy found that the as-built drainage blueprints weren't always correct about which specific area drained into a particular outfall pipe.

To make it easier to find the outfall pipes in the native-grass areas, wooden hazard stakes were made and used as markers. A drimmel tool engraved the stakes to signify the specific areas with abbreviations of what area was being drained. For example 17G + LB + RB + BSN stands for the 17th green, left bunker, right bunker and catch basin. Then the stakes were painted blue.

Some of the outfall pipes drain only one area. Other larger pipes drain as many as 10 different areas. The pipes also can be triangulated off of the closest sprinkler heads on the as-built irrigation blueprints. There were about 40 outfall pipes that were marked in the nonmaintained native grass areas.

McGreevy has since moved on and is the golf course superintendent at Wyncote Country Club in Oxford, Pa.



"Browns" not greens

The Mesaieed Golf Club in Doha, Qatar, is one of the few all-sand golf courses left on the planet. The first nine holes were built in 1952, and the second nine were built in 1979. The club, which is owned and operated by Qatar Petroleum, measures 6,645 yards and plays to a par 71 with two sets of tee markers.

The "browns," which are more than two feet deep, are built using straight, fine-grade dune sand from the Arabian Gulf. They're oiled once a year in mid-summer during the off season using 270 to 400 gallons of raw, crude oil per green. The greens take six to nine weeks to dry. The maintenance staff rakes the greens each morning prior to play and a "greenkeeper" is positioned next to three or four greens that are close to each other so he can rake the greens after each group putts out. The hole locations are changed once a week.

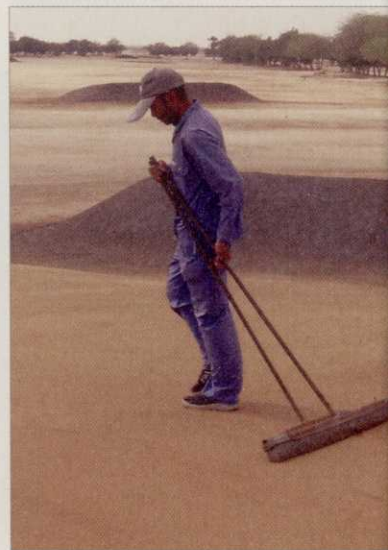
The sand bunker surrounds also are oiled at the same time as the "browns." The club doesn't allow members or guests to hit shots from the bunker surrounds, so a rope is placed on the top of each slope. If a ball lands on the sand side of the slope, the golfer gently nudges the ball, forcing it to roll down the hill, and then it's played as it lies. The same procedure is used on the other side of the rope. The mason bunker sand is raked daily.

The fairways used to be oiled once annually, but it hasn't been done since 1990 because of environmental reasons. The edges of the fairways are defined by 12-ounce, aluminum soft drink cans filled with concrete. A large nail is positioned in the concrete, then it's placed in the turf to keep the can upright.

If golfers' shots land in the fairway, they hit off of an 18-inch-by-18-inch artificial turf mat. If they land in the rough, they play it as it lies. Most members and guests walk and carry their clubs or use "trolleys." There are two "buggies" for those players who can't walk.

The trees have drip irrigation bubblers that are programmed to water each tree two times per day in the summer and once during the winter.

Viswanathan, who is a native of India, has been the golf course superintendent for the past 27 years. **GCI**



Travels With Terry

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.

(SUPERINTENDENT PROFILE continued from page 41)

securing your next job.

"There's a demand for my guys, but during the past few years, it's been more difficult," he says. "The guys in our loop – I think it's down to four levels now – have strengths. I get criticized for having my guys get the good positions at various clubs, but they've proved themselves. At one point, superintendents at six of the top 10 golf courses in the country were former employees of mine. I helped develop their work ethic. I don't accept 'no' for an answer. Too many times we run into a problem and say it can't get done. That's when I say pull out all the stops."

Latshaw says he doesn't advertise the guys who worked for him. He receives calls from clubs looking to hire, and he puts in a good word for his former employees.

"They're like sons to me," he says.

Latshaw attributes his success partly to luck.

"I was in the right place at the right time and my career blossomed," he says. "Back in the 1970s, the PGA had a difficult time finding a course to host the Championship. I got a lot of press. I even made the front page of The Wall Street Journal. Once you get in the limelight, people seek you out. I never wanted to be in the limelight, but it just happened."

The key to a superintendent's success is to surround himself with good people, Latshaw says.

"I constantly recruited to find good people," he says. "Then when I got them to work for me, I pushed them to see if they really wanted to be in the business. I worked them, and they excelled. I always had people calling me."

A certain level of success can determine whether a superintendent is great or just average. To be great, Latshaw says one needs to have a goal and pursue it, be a good communicator, have a drive to excel and take a leadership role when dealing with people. Being a good salesman also is important.

"People always say, 'If I had that kind of a budget, I would be able to do X,'" he says. "You need to be a good salesman and convince people they need to put more money into their golf course. When that happens, the whole club does better."

"Most of the clubs I went into were struggling," he adds. "It all starts with a good golf course. It's easier said than done, and it requires

persistence. Slowly you can raise the budgets. Courses are realizing if they don't keep up with the Joneses they'll have more problems."

Latshaw really doesn't see himself as a teacher but rather a stickler for detail. He says every job can be done better.

"I pushed for perfection," he says. "I surrounded myself with good people. Those people did the training because they knew what I wanted. Training was set by example. I was in the Navy for four years and use its philosophy. When you're on a destroyer, you're forced to learn quickly."

Latshaw also has seen many changes throughout his career. For starters, he says superintendents have many more tools to work with today than they did in the '60s. Education is another considerable change.

"When I entered the industry, I was in the beginning group of guys who had a college education," he says. "Nowadays, almost every superintendent has a degree of some sort."

Superintendents also are working with better irrigation systems.

"During my career, I put in five new irrigation systems and each one was better," he says. "We're able to manage water better. I think that was the key to my success because I was stingy with water."

Latshaw definitely has left his mark on the golf course industry, and he hopes people think highly of him as a good person who has helped advance the profession. Throughout his career, he has gained the respect of superintendents and club members alike.

"I helped raise the income bracket for superintendents," he says. "I did it by example, not by preaching to the choir. In the 1960s, there wasn't much respect for the golf course superintendent. At that time, my wife (Phyllis, who passed away in 2004 at age 63) was a school teacher and was making more money than I did as a superintendent. My paycheck is my report card. Because my salary increased, others increased. I wasn't afraid to move or do better. I was fortunate that people paid me what I demanded. We've come a long way in this industry." **GCI**

Paul R. Latshaw can be reached at latshawgolf@comcast.net.

(NEWS ANALYSIS continued from page 21)

of the CMAA as a reason for the increase.

The addition of the CMAA brought together many golf course managers, owners and superintendents at the show for the first time.

"One golf course manager said to me, 'We joined the NGCOA when we found out you guys were working together,'" says Jim Singerling, c.e.o. of the CMAA, adding he's heard



From left, Steve Mona, Mike Hughes and Jim Singerling discuss the success of the Golf Industry Show. Photo: Heather Wood

other positive comments about golf course managers becoming closer with their owners and superintendents throughout the show.

"Teamwork is a financial imperative – it's not a luxury at all," Mona says. "There's no room for inefficiency at the facility level."

The GCSAA exceeded its expectations in the education conference, Mona says. Several of the sessions were filled to capacity.

"It's an ultimate indication of the health of the show," he says.

The three associations will regroup later this month to review what worked and what didn't and begin planning next year's show, which will be held in Orlando, Fla. Mona says he's excited for the event because the Orlando events traditionally have better turnouts than West Coast shows. – HW

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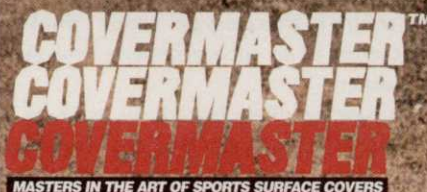
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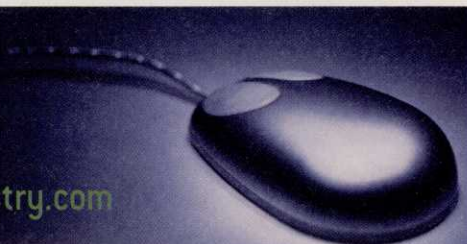
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Pat Jones is president of Flagstick LLC, a consulting firm that provides sales and marketing intelligence to green-industry businesses. He can be reached at psjhawk@cox.net or 440-478-4763.

DÉJÀ VU

These days, I'm a very happy camper serving as a columnist for *Golf Course Industry* because the staff lets me write whatever the hell I want (which, just between you and me, is an enormous mistake). That said, it's no secret that about nine years ago, I helped launch another magazine in this strange little business.

In the early days of that other magazine – whether consciously or unconsciously – we ran quite a few editorials and articles that managed to royally piss off various readers. Superintendents were mad. The associations were irritated. Course builders were furious. Architects were bugged. Assistant golf professionals were apoplectic (apparently, they weren't wild about being referred to as glorified shirt folders).

In short, we were equal opportunity annoyers. Everybody was chapped. Readers wrote e-mails, letters and even called (I received interesting, presumably alcohol-fueled voice-mails late at night). Subscriptions were cancelled and boycotts were threatened.

Man, it was fun. I adored every minute of it. Each nasty letter or anonymous call meant people were reading and that we'd engaged them in a way no other publication ever had in those days.

That's why I felt a lovely sense of déjà vu during the past month or so when I started getting e-mails and calls from superintendents who took issue with the image on the cover of this magazine's January issue. To refresh your memory, the cover picture featured the general manager and the superintendent of a noted country club that had renovated its practice range recently. In the photo, the g.m. stood far front, wearing a spiffy blazer and tie, while the superintendent was in the background dressed as a ... well, as a superintendent.

The complaints all centered on the fact the g.m. was prominent while the superintendent was – to quote one letter-writer – a “tiny dot in the distance.” A well-known superintendent wrote that the image had “set

us back 20 years.” Another, a past president of GCSAA, said it was in poor taste. Several mentioned the lousy timing of the photo considering the first joint GCSAA/CMAA conference was on the horizon. Subscription cancellations were promised, and there was much harrumphing.

Complaints are like cockroaches; for every one you get, there are probably a hundred more you don't see. I'm sure there were many more readers who thought the photo stunk, but didn't write or call. Maybe you're one of them. If so, here's my opinion about the matter:

Complaints are like cockroaches; for every one you get, there are probably a hundred more you don't see.

(Editor's Note: Before you read this, please remember Pat Jones is a renowned idiot and legendary loose cannon. His opinions are his alone. He isn't an employee of GCI, just a hired ink-stained wretch whose keyboard fingers often move faster than his brain. This is, by no means, the official view of GCI or any other sane publication. Thank you for your attention. We now return you to the gibberish he passes off as a column.)

- It's one picture depicting one story. Get over it. Part of the emergence of the superintendent as the key manager at a golf facility should be that your skin gets a little thicker. When you react so dramatically to a perceived slight, it harkens back to the old days when I heard so many superintendents say that “Caddyshack” set the profession back decades. Puh-leeze. Your image is your own – it's not something dictated or influenced by any movie or magazine.

- The story was about the business decision that led this club (and several others)

to renovate. The question for the club was, “Will we attract and retain more members if we make a major investment to remodel our practice facility?” That financial issue, like it or not, fell into the purview of the g.m. in this particular situation. Yes, the superintendent did the work and did it well. If the story had been about the agronomic and construction specifics of the project, the superintendent obviously would have been the centerpiece. But that wasn't the case, and the g.m. was featured more prominently in the article.

- GCI – then GCN – isn't focused exclusively on serving the needs and interests of the superintendent. The modern reality of the golf business is that, within the team decision-making concept, every manager has a role in helping the facility succeed. The mission of this magazine, as I understand it, is to provide useful information to each of those managers. Yes, the majority of our articles are aimed at superintendents, but we also provide business perspectives on management, marketing, finance and other issues that impact everyone on the team.

- Imagine if the positions of the two individuals on the cover were reversed. Do you think club managers would have grabbed pitchforks and torches and stormed GCI's headquarters demanding blood because the superintendent was too prominent in the story? I'm obviously being facetious, but the point is superintendents have been historically hypersensitive to “slights” like this (see “Caddyshack” above). In fact, here's what Mike Mongiello, the superintendent depicted on the cover, had to say: “I don't find the picture degrading to me nor do I assume it was intended to misrepresent the role of a golf course superintendent.” There's a cat who's comfortable in his own skin.

Stories and cover images like this will continue to appear in GCI from time to time. If that means getting the occasional nasty letter or being buttonholed by an unhappy reader at a meeting, then so be it. As Yogi Berra once said, “It's déjà vu all over again.” And, in my humble opinion, that's a good thing. **GCI**

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