

November 2004

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# GOLF

## COURSE NEWS

Serving the Business of Golf Course Management

# The Future Course

2010 2011  
2008 2009  
2006 2007

### IN THIS ISSUE:

- Seed update
- Equipment maintenance
- Building a bulletproof budget





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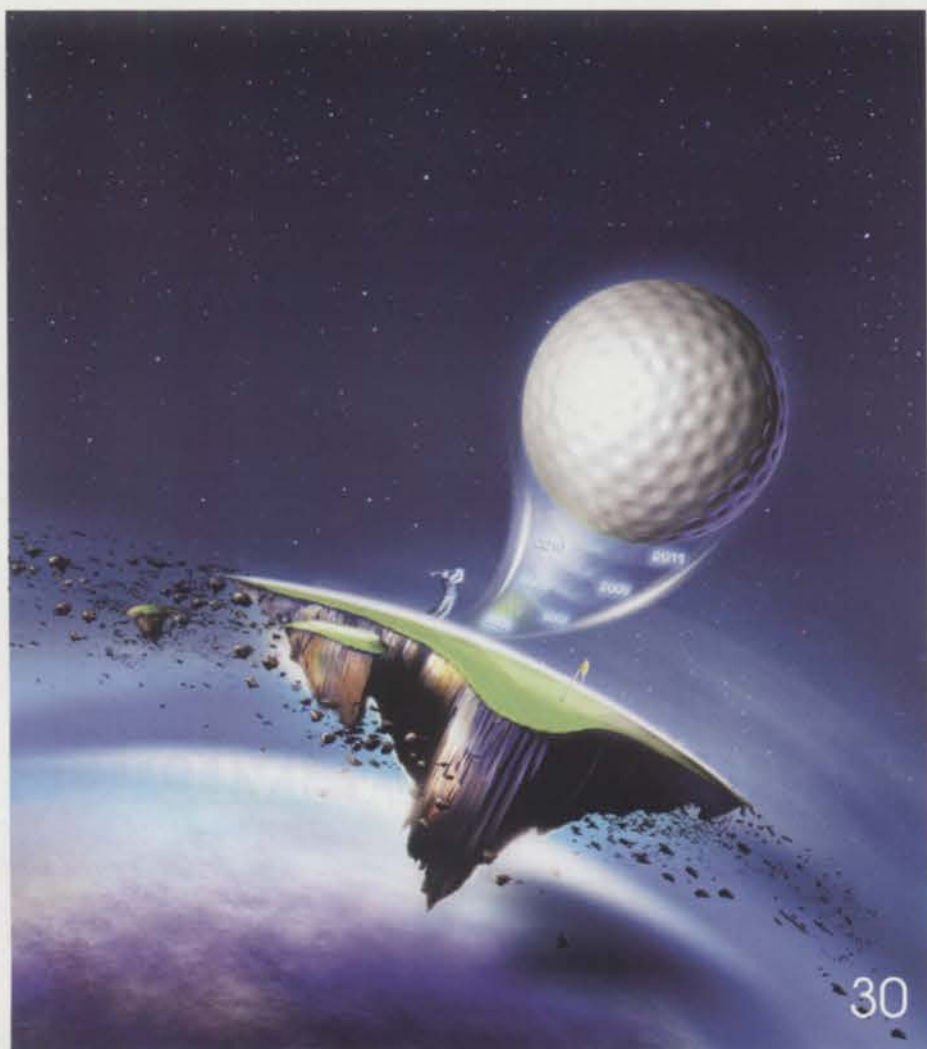
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# The Future Course

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Kevin Gilbride, Publisher

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John Walsh  
Editor

## A helping hand

**G**ood will. The industry has a lot of it. One of the unique aspects about the golf course management industry is the comradery among golf course superintendents and the brotherhood that exists among them. It's a friendliness among competitors that I haven't seen in other businesses.

Superintendents continuously use better products, methods and technologies to manage turf and their staffs better, as well as meet golfers' expectations through the conditions of the courses they maintain. When someone finds something that works better or finds a better way to do something, he's not shy about telling other superintendents what's working for him or what isn't. And there seems to be few trade secrets. Most golf course superintendents want their fellow professionals to excel at their jobs and advance within the industry.

Another example of this brotherhood is when superintendents give each other a helping hand when someone hosts a major tournament. With millions of people watching and thousands visiting a course for such a tournament, the superintendent wants the course to shine. Other superintendents want the course to shine, too. That's why there are many superintendents and assistant superintendents from throughout the country that come to the course that's hosting the tournament to volunteer their time and efforts to help a fellow superintendent. Many superintendents work behind the scenes to give one superintendent the limelight as professional golfers praise the conditions of such a well-maintained course. That's not selfish.

Recently, late this summer and early fall, there was another example of superintendents' care for each other after many well-maintained courses in Florida took a beating from Mother Nature. Four hurricanes – Charley, Frances, Ivan and Jeanne – tore through Florida and wreaked havoc, damaging some of the country's most beautiful golf courses.

There are about 1,300 courses in the Sunshine State – the most golf courses per state, according to the National Golf Foundation – and 350 to 400 of them were damaged from the hurricanes. There have been estimates as much as \$30 billion worth of overall damage in Florida. The cost of cleanup for some courses is

between \$800,000 and \$1.1 billion. Mother Nature can be vicious, but who thought like this. Not only has she put a hurt on the physical conditions of these courses, but she's also put a clamp on their revenue streams. The negative affects of the damage will last for the rest of the year and into next year for some of these courses. Owners must wonder when they're going to wake up from this horrible nightmare.

Jeff Parsons, general manager of the Diamondback Golf Club in Haines City, estimates the hurricanes took out about 1,000 trees on the course and the cost to clean up and repair all the damage will be about \$250,000 in machine and labor costs. Parsons expects the cleanup to take about a year. To help with the cleanup, Diamondback received help from members of a golf course maintenance crew in Georgia.

Randy Waldron, superintendent at the Golf Club of Georgia in Alpharetta, heard about golf courses sustaining hurricane damage in Florida and wanted to do something to help. So he contacted a friend, ChampionsGate Country Club superintendent Bobby Ellis, to see what he could do. Ellis referred him to Parsons, and Waldron sent one of his assistants, Steve Sisson, and some equipment to Diamondback.

Because Waldron and some of his staff are from Florida, they wanted to help out, especially a course that didn't have a big budget. The course maintenance staff at the Golf Club of Georgia convinced a local supplier to donate a chain saw for Sisson to take with him, and the staff collected about \$300 to pass along to Diamondback's maintenance staff. Sisson helped out at Diamondback for a week while he was being paid by the Golf Club of Georgia.

Now that's lending a helping hand.

This is just one example of superintendents helping fellow superintendents during a crisis. I'm sure there are plenty more. But in this day and age of superintendents having to do more with less, it's nice to know they're willing to give other superintendents a helping hand at no cost and even chip in out of their own pockets. It all goes back to brotherhood.

Superintendents are lucky and should be thankful they're in an industry that's so helpful and kind. Many other industries, because of competition and budget pressures, are much more vicious – kind of like, well ... Mother Nature at times. GCN

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## Calendar of events

**Nov. 30 - Dec. 2**

Illinois Professional Turf Conference  
Pheasant Run MegaCenter  
St. Charles, Ill.  
Call 630/243-9483 or visit  
[www.illinoisturfgrassfoundation.org](http://www.illinoisturfgrassfoundation.org).

**Dec. 7-9**

Rocky Mountain Regional Turfgrass  
Association's 51st Annual Turfgrass  
Conference and Trade Show  
Holiday Inn Denver International  
Airport  
Call 303/770-2220 or visit  
[www.rmra.org](http://www.rmra.org).

**Dec. 7-10**

2004 Ohio Turfgrass  
Conference & Show  
Greater Columbus (Ohio)  
Convention Center  
Call 888/683-3445 or visit  
[www.ohioturfgrass.org](http://www.ohioturfgrass.org).

**Dec. 9-11**

New Jersey Turfgrass &  
Landscape Expo  
Taj Mahal Casino and Resort  
Atlantic City, N.J.  
Call 732/821-7134 or visit  
[www.njturfgrass.org](http://www.njturfgrass.org).

**Dec. 15**

The 6th Annual Organic  
Turf Trade Show  
Smithtown (N.Y.) Sheraton  
Call 516/541-4321 or visit  
[www.neighborhood-network.org](http://www.neighborhood-network.org).

**Jan. 5-7**

Minnesota Green Expo  
Minneapolis Convention Center  
Call 888/886-6652 or visit  
[www.minnesotagreenexpo.com](http://www.minnesotagreenexpo.com).

**Jan. 6-11**

56th Annual Canadian International  
Turfgrass Conference and  
Trade Show  
Metro Toronto Convention Center  
Call 905/602-8873 or visit  
[www.golfsupers.com](http://www.golfsupers.com).

**Jan. 11-13**

Virginia Turfgrass Council's 45th  
Annual Turf and Landscape  
Conference and Trade Show  
Downtown Richmond (Va.) Marriott  
Call 757/464-1004.

**Jan. 12-13**

Ninth Annual Heart of America  
Golf and Turf Conference  
Overland Park (Kan.) Convention  
Center  
Call 816/561-5323.

**Jan. 17-20**

Annual Michigan Turfgrass  
Conference  
Holiday Inn South Lansing, Mich.  
Call 517/321-1660 or visit  
[www.michiganturfgrass.org](http://www.michiganturfgrass.org).

**Jan. 17-20**

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

## Books

### Golf greens book explores theories

Columbus, Ohio - Michael J. Hurdzan, Ph.D., of Hurdzan/Fry Golf Course Design recently wrote a new book, "Golf Greens: History, Design, and Construction." Hurdzan looks at the past 100 years of history and evolution of golf greens, how scientific investigations have influenced their construction, the intent of the golf course architect when designing a green, and how design and construction influence maintenance practices.

Through exploration of the history of golf greens, related design theories and future trends in the game, the book uncovers how modern golf green designs fit in with the history of the game. The book also looks at the strengths and weaknesses of construction methods, legal considerations and how to manage specific problems.

Hurdzan intended to make the book light reading for those mildly interested, but also to be an in-depth textbook for serious students of golf course design and maintenance. The book is available by calling 877/762-2974 or 614/457-9955. GCN



# GOLF COURSE NEWS

Serving the Business of Golf Course Management

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# GOLF

## COURSE NEWS

### What do you think of the new *Golf Course News*?

*Golf Course News* wants to serve its subscribers with the best editorial coverage possible. Please take a few minutes to complete this self-mailer survey to: *Golf Course News*, PO Box 5817, Cleveland, OH 44101-0817.

#### 1. What is your job title?

- Golf course superintendent
- Assistant superintendent
- General manager
- Other: \_\_\_\_\_

#### 2. Please rate the value of:

(1 = poor, 7 = excellent)

- \_\_\_ Editor's editorial
- \_\_\_ Resources page
- \_\_\_ Industry news
- \_\_\_ Marketing your course column
- \_\_\_ Design conceptions column
- \_\_\_ Advancing the game column
- \_\_\_ Relationship Q&A feature
- \_\_\_ The future course cover feature
- \_\_\_ Dublin Ranch design solutions feature
- \_\_\_ Building a bulletproof budget feature
- \_\_\_ A better grass seed update feature
- \_\_\_ Equipment maintenance feature
- \_\_\_ Florida hurricane course cleanup feature
- \_\_\_ Improving turfgrass USGA research feature
- \_\_\_ Research updates
- \_\_\_ Product section
- \_\_\_ Making a difference

#### 3. Which turfgrass will have the biggest impact on golf course maintenance?

- A. Paspalum \_\_\_\_\_
- B. Roundup Ready creeping bentgrass \_\_\_\_\_
- C. Perennial ryegrass \_\_\_\_\_
- D. Seeded Bermudagrass \_\_\_\_\_

#### 4. What percent of your employees speak Spanish as their first language?

- A. 25% or less \_\_\_\_\_
- B. 26% to 50% \_\_\_\_\_
- C. 50% to 80% \_\_\_\_\_
- D. More than 80% \_\_\_\_\_

#### 5. How often do you play golf?

- A. 5 to 15 times a year \_\_\_\_\_
- B. 16 to 25 times a year \_\_\_\_\_
- C. 26 to 35 times a year \_\_\_\_\_
- D. More than 35 times a year \_\_\_\_\_

#### 6. May we contact you?

Name: \_\_\_\_\_  
Phone: \_\_\_\_\_  
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Thank you.



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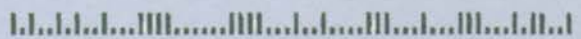


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# **GOLF**

**COURSE NEWS**

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Corrections

- According to Jim Barrett, president of James Barrett Associates, 2 percent of all the planet's water is in the ice caps and glaciers, and 99 percent of all the planet's water is unavailable for all of man's needs. This information was incorrect in the "War over water" feature in the October issue.
- Daconil and chlorothalonil were misspelled in the "Disease control" feature in the October issue.

Industry news

Kansas State, Pursell enhance program

Sylacauga, Ala. – Kansas State University partnered with Pursell Technologies to enhance the school's golf course management program and the future of the turf industry through a new breed of superintendent. The Kansas State horticulture department offers a golf course management program that educates students in all aspects of managing and operating a golf course, going beyond traditional turf maintenance.

Dr. Jeff Higgins, executive director of business development for Pursell, is an adjunct faculty member and has taught a class on nutrient management and fertilization strategies.

The university hopes to place future interns at Pursell-family-owned FarmLinks Golf Club to further students' experiences. Students will be given the opportunity to participate in The Experience at FarmLinks where they will receive education about fertilizer release mechanisms from Pursell and attend sessions about plant protection strategies and golf course maintenance and irrigation equipment.

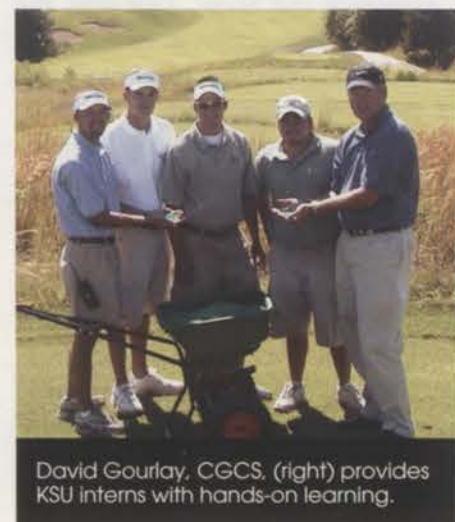


Photo: Pursell Technologies

David Gourlay, CGCS, (right) provides KSU interns with hands-on learning.

Premier Golf leases courses in Cincinnati

Pacific Palisades, Calif. – Premier Golf Management leased five golf courses in the greater Cincinnati/Kentucky area: Crooked Tree Golf Course, Shaker Run Golf Club, Walden Ponds Golf Club, Deer Run Country Club and Traditions Golf Club. The U.S. Amateur Public Links Championship will be held at Shaker Run in 2005.

The company's portfolio now includes 20 courses in 10 states. Recent transactions include purchases, leases, management contracts and receivership management agreements.

Overseeding Bermudagrass discussed at summit

San Francisco – A meeting that focused on issues regarding transition management of overseeded Bermudagrass on golf courses attracted university and U.S. Golf Association researchers from throughout the transition-region states.

Stan Zontek of the USGA Green Section in the mid-Atlantic region provided an overview of the history of overseeding and transition of golf courses. Presenters provided research data and opinions about topics such as "What happens to Bermudagrass during spring transition," "The effect of Bermudagrass cultivars and herbicides on transition success," and "The influence of fungicides during spring transition."

Shawn Emerson, director of agronomy at Desert Mountain Resort in Scottsdale, Ariz., provided a case study of his experiences with transition on the six Jack Nicklaus-designed golf courses he manages.



Emerson

"Timing of transition is the biggest struggle in our operation," Emerson says. "A few days can make the difference of millions of dollars in revenue for our golf courses."

Adequate fertility is a key for successful transition, according to Dr. Bert McCarty, professor of horticulture at Clemson University. The use of herbicides increases the



Murphy

density of turf and allow a better base of Bermudagrass, according to Dr. Tim Murphy, professor of weed science at the University of Georgia. Bayer Environmental Sciences sponsored the meeting.

Association news

GCSAA ratifies candidate choices for 2005 elections

Lawrence, Kan. – The Golf Course Superintendents Association of America ratified the slate of candidates for its 2005 elections. Voting members will elect three officers and three directors at the annual meeting Feb. 11, which is held in conjunction with the GCSAA education conference and Golf Industry Show in Orlando, Fla.



The following individuals will appear on the ballot:

For president: Timothy T. O'Neill of the Country Club of Darien (Conn.)

For vice president: Sean A. Hoolehan of Wildhorse Resort Golf Course in Pendleton, Ore.

For secretary/treasurer: David S. Downing II, director of golf operations at The Pearl Golf Links and Ocean Isle Beach Golf Course in Sunset Beach, N.C.; and Ricky D. Heine, general manager at The Golf Club Star Ranch in Austin, Texas

For director: Gregg A. Blew of Wellshire Golf Club in Denver; James R. Fitzroy, director/superintendent at the Wollaston Recreational Facility/Presidents Golf Course in North Quincy, Mass.; Mark D. Kuhns, director of grounds at Baltusrol Golf Club in Springfield, N.J.; and Robert M. Randquist, director of golf course and grounds at Boca Rio Golf Club in Boca Raton, Fla.

All candidates are certified golf course superintendents.

Jon D. Maddern, immediate past president, and Robert J. Maibusch, director, are retiring from the board. Mark J. Woodward will serve on the board for one year as immediate past presi-



dent. Gary K. Carls has one year remaining on his two-year term as director.

## Audubon group designates courses for environment

Selkirk, N.Y. – The following properties have been designated as Certified Audubon Cooperative Sanctuaries, according to Audubon International:

- Ekwanok Country Club in Manchester, Vt. – Tedd Mattocks, superintendent;
- Hamilton Golf and Country Club in Ancaster, Ont. – Tracy Fowler, assistant superintendent;
- Maroon Creek Club in Aspen, Colo. – John Upthegrove, superintendent;
- IGM – Broad Bay Country Club in Virginia Beach, Va. – Dan Schlamp;
- Telluride (Colo.) Golf Club – Deanna Belch;
- Braemar Golf Course in Edina, Minn. – Bob Atol, assistant superintendent;
- Newport National Golf Club - Orchard Course in Middletown, R.I. – Scott Roche, director of maintenance operations; and
- Glen Abbey Golf Club in Oakville, Ont. – Peter Kinch, superintendent.

Also, Audubon Park Golf Course in New Orleans and St. James Bay Golf Course in Carrabelle, Fla., were designated as Certified Signature Sanctuaries.

Four hundred and ninety-eight golf courses have achieved designation as Certified Audubon Cooperative Sanctuaries for implementing a complement of environmental activities.

## PGA launches certificate program for management

Palm Beach Gardens, Fla. – The PGA of America launched the PGA Certified Professional Program, an online, career-enhancing educational curriculum that supports goals of PGA Professionals who are improving their management skills. The program enables golf professionals to achieve certification in one of six career paths: general management, golf operations, instruction, retail, executive management and ownership/leasing.



Once professionals select

a career path, they can begin the online course work, which can be completed at their convenience from any location. The program follows five steps: self-assessment, courses, proficiency test, career path certification and master professional program. Certification enables PGA professionals to prove they have quantifiable and measurable skills that will have a positive impact on their employers' bottom line.

Almost 80 percent of all golf courses with 18 or more holes have a PGA member present.

## Irrigation group presents awards for achievements

Falls Church, Va. – The Irrigation Association announced the recipients of its annual awards, which were presented at the 25th International Irrigation Show in Tampa, Fla., Nov. 15.

Retired Irrrometer Co. president William R. Pogue received the Irrigation Association 2004 Industry Achievement Award, which was established in 1966 and recognizes the achievements from an individual within the industry who has contributed to the advancement of the irrigation industry and its products.

Edward M. Norum, the first executive director of the Center for Irrigation Technology, and Dr. Stuart Styles, di-

## THE IRRIGATION ASSOCIATION

rector of the Irrigation Training and Research Center, received the 2004 Person of the Year by the Irrigation Association. Established in 1952, the award goes to individuals outside the industry who have made outstanding contributions toward the acceptance of sound irrigation practices.

Jack Buzzard, who spent 35 years developing international markets for Rain Bird, received the Irrigation Association's 2004 Crawford Reid Memorial Award, which is for significant achievements in the promotion of proper irrigation techniques. It was established in 1995. Buzzard is vice president for international and agriculture for Rain Bird.

Disney's Horticulture, which maintains the grounds of the 47-square-mile Walt Disney World Resort, received the Irrigation Association 2004 Partner of

the Year for its commitment to education and certification of irrigation specialists. Disney's staff maintains four theme parks, resort hotels, irrigated peripheral areas and all support areas for the Florida resort.

Nebraska's Upper Republican Natural Resource District received the 2004 Water and Energy Conservation Award, which honors significant achievement in the conservation of water and energy relating to irrigation procedures, equipment, methods and techniques. It was established in 1982.

## Builders association joins in to present Golf Industry Show

Lincoln, Neb. – The reach of the Golf Industry Show will extend to those who shape the game's courses as the Golf Course Builders Association of America agreed to join the Golf Course Superintendents Association of America, the National Golf Course Owners Association and the Club Managers Association of America to present the Golf Industry Show.



The inaugural Golf Industry Show, which combines the GCSAA and NGCOA trade shows, will be conducted Feb. 10-12, 2005 at the Orange County Convention Center in Orlando, Fla. The CMAA will become associated with the event in 2007 in Anaheim, Calif., after conducting its 2005 World Conference on Club Management and Exposition, Feb. 27 - March 3 in New Orleans and its 2006 gathering in Hawaii.

The GCBA previously had a presence at the GCSAA International Golf Course Conference and Show. This year, the GCBA will participate in various trade show features, most notably the building of the green solution center. GCBA members will be demonstrating construction methods and providing information regarding putting green complexes.

"From the GCBA member standpoint, exposure to key decision-makers whether by exhibiting or networking is of significant value," says GCBA president Tommy Sasser. "From the attendee perspective, securing comprehensive business solutions from those who own, build and manage a course will only strengthen their facility's operations."





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## IAEF awards trip to college student for irrigation show

Falls Church, Va. – The Irrigation Association Education Foundation awarded Michelle Bunch, a University of Tennessee student who promotes water conservation through the use of reclaimed water, a trip to Florida to the 25th International Irrigation Show.

Bunch's instructor, Gary Menendez, received show registration and a complimentary hotel stay, as well.

Students were asked to submit a paper or project that encourages water management and conservation related to irrigation systems used in landscape or agriculture sites.

Several technical papers for turf and landscape were presented during the show and addressed various aspects of using reclaimed water. Researchers are looking at using air-conditioner con-

densate and rainwater gathered in cisterns for irrigation.

## College students chosen by GCSAA for scholarships

Lawrence, Kan. – The Golf Course Superintendents Association of America selected two national honorees in the 2004 Scotts Co. Scholars Program. Winners are Jacob Schneider, a soil science major at the University of Wisconsin - Madison, and Benjamin Stover, a horticulture management major at Iowa State University.

The Scotts Co. Scholars Program, administered by The Environmental Institute for Golf, recognizes promising students from culturally diverse backgrounds who have an interest in pursuing a career in the green industry. As part of the program, five finalists are selected for summer internships, a \$500

award and the opportunity to compete for the two \$2,500 scholarships. Additionally, the two scholarship winners will receive an all expense paid trip to the 2005 Golf Industry Show in Orlando, Fla., Feb. 10-12.

## New process for certification implemented

Lawrence, Kan. – The Golf Course Superintendents Association of America is implementing a new certification process and exam. Since Nov. 1, GCSAA members interested in becoming certified have been subjected to the new exam and certification process.

The Professional Development Initiative began with a mission to improve the knowledge, skills and abilities of the professional superintendent that contribute toward improved playing conditions and enjoyment of the game of

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golf. During the initial discussions of PDI, the primary goal of the certification committee was to define the competencies necessary to be a successful superintendent to redesign the GCSAA's existing certification examination to a competency-based program in line with the PDI.

More than 200 GCSAA members were involved in the program's redesign. Members served as committee members, subject matter experts, survey participants, item writers, beta testers and portfolio judges, all of whom had specific goals throughout the process that contributed to the final product.

## Course news

### Construction ready for golf course in Sunshine State

Lakeland, Fla. – With Community Development District funding approved, developers of a new golf course community called Bridgewater began construction of a Steve Smyers-designed golf course.

The CDD, a private agency that sells and manages community bonds to pay for the common areas of developments including golf courses, gave the approval after meeting with Bridgewater's developers. The group is led by Riverview, Fla.-based site developer Kearney Development Co. and Phillips Development of Raleigh, N.C.

The 600-acre Bridgewater property contains 228 acres of lakes and will devote 200 acres to a daily-fee golf course, leaving the remaining land to develop 800 houses around the lakes. The housing, restaurant and clubhouse are being built by Kearney, and the golf course will be constructed by Niebur Golf of Colorado Springs, Colo.

Twenty-four acres of overgrown, distressed wetlands will be dug up and improved by clearing out trash growth and planting native materials.

The project will create a 165-acre wildlife corridor consisting of 64 acres of upland native tree and grass plantings, such as slash pines, sabal palms, cord grass and paspalum, and the lowlands and wetlands. Only 67 acres of turfgrass will be maintained, and wetlands will mark low areas. Trees, grasses and shrubs will delineate high areas.

### Brasada Ranch in development on West Coast

Redmond, Ore. – Eagle Crest, a division of Jeld-Wen Corp., broke ground on an 18-hole layout at Brasada Ranch, a resort community.

Brasada Ranch will feature 900 real-estate units spread throughout 1,800 acres, half of which will be preserved as open space. The course will occupy about 200 acres, winding its way through the property's high-desert landscape replete with miniature canyons and sage brush.

The resort sits 3,500 feet above sea level on the western slope of the Cascades.

"The canyons here presented us a tremendous opportunity for invention," says Peter Jacobsen, a partner with Jacobsen Hardy Golf Course Design, the architectural firm that designed the course. "We've routed several holes down in the canyons, while other holes play across the tops and along the edges.

"The site has an old trestle bridge coming off the 18th hole," he adds. "We'll be using this elevated structure to bring golf carts back to the clubhouse. The club's entry drive will pass right underneath the trestle."

Weather permitting, course construction will continue through 2005. A grand opening is scheduled for early 2006.

The irrigation system, which will use effluent water, will be tied into a central weather system on site to adjust for weather patterns automatically. The sewer treatment plant will produce the cleanest effluent possible, and the gray water will be reused to irrigate the golf course. Plans also include moving 100,000 cubic yards of dirt – mostly to create an irrigation pond. Additionally, limited turf acreage will be used.

"On many holes, we'll be building perimeter tees where you walk through desert areas back to a series of pods," says Jim Hardy, a partner with Jacobsen Hardy who estimated that less than 100 acres of the course will be maintained as turf. "Basically, we've kept grassing to a minimum, which reduces overall irrigation allotments."

### Glacier Club features new holes

Durango, Colo. – The former Tamarron Resort was transformed into

the new 27-hole Glacier Club, which features a new clubhouse and golf community amid the San Juan Mountains. It opened in late July. The centerpiece of the course is the new nine holes and 18 redesigned holes designed by Design Workshop.

The course weaves through conifer forest and protected wetlands. With five sets of tees, the course is designed to be comfortable for golfers of all abilities. For environmental and aesthetic reasons, the designers – Todd Schoeder and Jeff Zimmermann – rejected conventional culverts and piping to manage

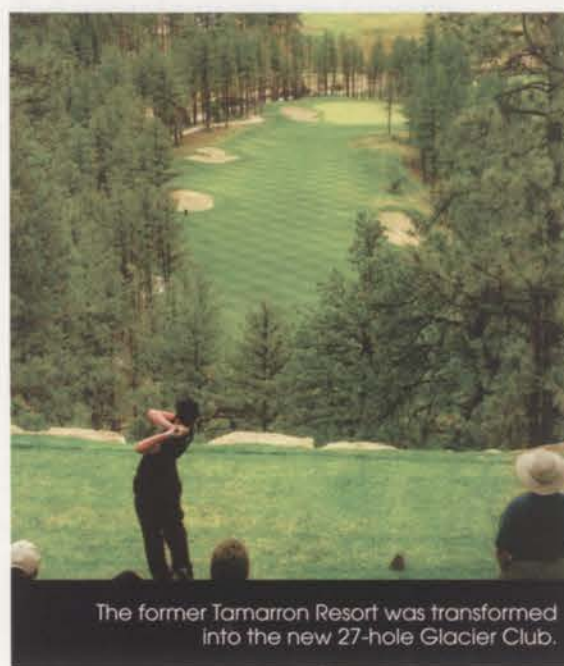


Photo: Glacier Club

The former Tamarron Resort was transformed into the new 27-hole Glacier Club.

surface water, instead structuring the course with an underlayment of six inches of sand and a natural filtration system of constructed wetlands that increase the site's wetlands. The course is irrigated by reclaimed water. Less than one-half acre of wetlands was disturbed in its making.

Play on Glacier 9 will require equity membership in The Glacier Club, which will encompass a resort village of 170 luxury town homes and 170 custom homes, as well as hiking trails, swimming and clubhouse restaurants.

### Skylinks course reopens after \$6-million facelift

Long Beach, Calif. – The Skylinks at Long Beach Golf Course reopened in October following a \$6-million renovation initiated by the Long Beach Department of Parks, Recreation & Marine in collaboration with golf course operator American Golf.



Course designer Cal Olson worked with Wadsworth Golf Construction to transform the flat course into an undulating layout that will play 600 yards longer – 6,973 yards from the championship tees – than the original. The par-72 course features larger, bentgrass greens, Bermuda-grass tees and fairways, four lakes with fountains, 80 bunkers, 700 new trees and more than 1,000 shrubs. Also, a waterfall was added between the first and 10th tees.

Complementing the course is a new short-game facility that includes a chipping green, practice bunker and enhanced driving range. Additionally, the property's new expansive banquet facility is expected to open during the fourth quarter this year.

## Mattaponi Springs opens in Virginia after five years

Ruther Glen, Va. – Mattaponi Springs Golf Club, the first East Coast design from Chicago-based architect Bob Lohmann, opened in October on the former Rose Hill estate, a 330-acre property an hour south of Washington.

Developed the past five years by Bellemont Development Corp., 18-hole Mattaponi Springs is an upscale daily-fee course featuring zoysiagrass fairways that cut through wooded terrain.

The course meanders through forests of beech, oak, holly and pine trees, and over rolling terrain cut by several streams that feed the nearby Mattaponi River. The layout measures more than 6,900 yards from the tips, though five sets of tees make the routing playable for players of all abilities.



Mattaponi Springs Golf Club took five years to develop.

With 330 acres to choose from, Lohmann and Mike Benkusky, the senior architect who directed the Mattaponi project for Lohmann Golf Designs, were able to choose the best land for strategy and aesthetics. A good example is the par-

3 third hole, which plays 148 yards from an elevated tee that features long views of the surrounding countryside. A rear shelf divides the putting surface in half, and the L93 bentgrass greens are replete with the shelves.

The clubhouse and golf course are new, but many of the surrounding structures are remnants of the property's history. The 19th Century lodge from the Rose Hill estate has been completely refurbished to accommodate the club's outings and functions.

## New course opens to public in Pennsylvania

Bucks County, Pa. – Makefield Highlands Golf Club, an 18-hole public layout, opened in July. Designed by Rick Jacobsen, the course is laid out on the partially wooded, rolling terrain of a former farm. The 166-acre site features underlying rock formations and a small stream that comes into play on several holes. Landforms separate the holes, and the roughs feature native grasses. The course, which features five sets of tees, measures 7,058 yards from the tips and 5,007 yards from the forward tees. The course features a par-5, 640-yard hole, which is the largest hole ever built by Jacobsen, he says.

## Deerwood reopens for play after renovation

Jacksonville, Fla. – Deerwood Country Club's golf course reopened Sept. 3 to members after receiving a \$3-million makeover designed by architect Brian Silva. The course features 18 new greens and tee complexes and new bunkers.

"With all new greens, tees, turf, irrigation and drainage, we essentially created a brand new golf course within the previous corridors of play," says Silva, a partner with Uxbridge, Mass.-based Cornish, Silva & Mungem. "But we've also made far better strategic and aesthetic use of this property, especially its existing water features."

Working closely with superintendent Dave Amirault, Stuart, Fla.-based TDI International tore down and completely renovated a 1961 George Cobb layout. Though it's technically a renovation, the Deerwood project kept true to the original design.



Deerwood Country Club's golf course reopened after a \$3-million renovation.

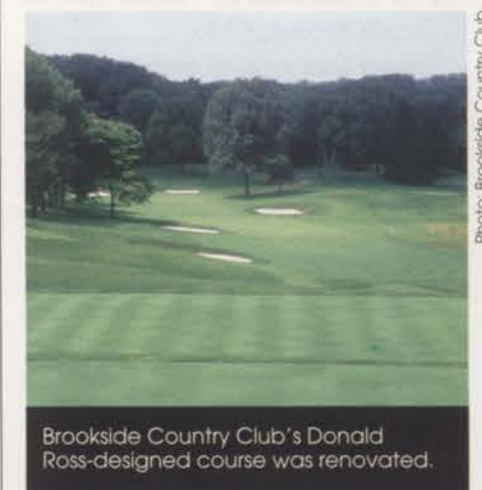
"This is a new golf course from the first tee to the 18th green, and everything in between," Silva says. "There's a new drainage scheme underlying the entire course and a new irrigation system. Overall, the course does what we set out to achieve: It can now be read from the tee – and it tells players something other than 'hit it down the middle.' When it reopened, folks familiar with the old design hardly recognized the place, which, from the club's perspective, was the whole point."

## Brookside reopens after architect redesigns course

Canton, Ohio – With 18 of the country's best-preserved, Donald Ross-designed greens, Brookside Country Club might have seemed an unlikely candidate for restoration. But with the help of architect Brian Silva, Brookside is now a preserved Ross layout, tee to green.

Closed in the fall of 2003, Brookside reopened for member play in June, minus 600 trees and featuring the perpendicular fairway bunkers Ross originally designed – much of which had been abandoned since the course opened in 1920. The club held a rededication ceremony for its course Aug. 13.

Working with MacCurrach Golf Construction of Jacksonville, Fla., Silva



Brookside Country Club's Donald Ross-designed course was renovated.



also rebuilt all 18 tee complexes and installed a new irrigation system. Yet the bulk of Silva's work amounted to restorative re-expansion. Fairways had become narrow by excessive tree-planting programs, and fairway bunkers filled in throughout time. Silva also restored Brookside's trademark greens to their original parameters, recapturing portions of certain putting surfaces that had disappeared following decades of careless mowing practices.

## Davis Love III designs course on Hampton Island

Hampton Island, Ga. – A Davis Love III-designed golf course will be built on the 4,000-acre Hampton Island nestled along the Georgia coast 35 miles south of Savannah. The island is a low-density, ecologically sensitive community that features natural beauty.

"We plan to create a golf experience that fits seamlessly within the natural environment – one that reflects not only the history and traditions of the game of golf, but the history of the area itself," says Love, a PGA Tour pro and golf course designer.

The 18-hole course will weave through the island's historic rice fields and equestrian plantations.

"We are equally committed to protecting our rich coastal history and to preserving the coastal sanctuary that is Hampton Island, while creating a unique golf experience that even the most sophisticated golfer can appreciate," says Wade Shealy, managing partner of Hampton Island.

## Golf course at Patriots Point acquired by Ginn

Charleston, S.C. – The Ginn Co., a Florida-based resort development com-

pany, acquired the golf course at Patriots Point. Presently, The Ginn Co. owns and operates RiverTowne Country Club in Mount Pleasant, S.C., which features the area's only Arnold Palmer signature golf course design.

Patriots Point is situated on land with a number of undeveloped parcels, which makes it suited for company's Charleston expansion plan that includes two other major acquisitions, according to Bobby Ginn, president and c.e.o. of The Ginn Co.

## U.S. Amateur finds locations for 2007, 2008

Pinehurst, N.C. – The Olympic Club in San Francisco will host the U.S. Amateur Championship in 2007, and Pinehurst Resort will host it in 2008. The 2007 championship will be held August 20-26, and the 2008 championship will be held August 18-24.

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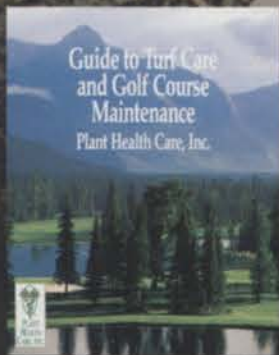
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Olympic, which recently hosted the 2004 U.S. Junior Amateur, has been the site of four U.S. Opens, as well as the Amateur in 1958 and 1981. The Lake Course and Ocean Course will be used at the 2007 Amateur.

Pinehurst No. 4 will be used for the first two days of stroke play.

Prior to 2007, the Amateur will be played at Winged Foot (N.Y.) Country Club, Aug. 16-22, 2004, Merion (Pa.) Country Club, Aug. 22-28, 2005 and Hazeltine (Minn.) National Golf Club, Aug. 21-27, 2006.

## Pebble Beach to host U.S. Open

Pebble Beach, Calif. – The U.S. Golf Association selected Pebble Beach Golf Links to host the 2010 U.S. Open, which will be played June 17-20. Additionally, the Pebble Beach Co. offered to host an undetermined future U.S. Women's Open.

Opened in 1918 and designed by Jack Neville and Douglas Grant, Pebble Beach has been host to 10 previous USGA championships, including four previous U.S. Opens. Each February, it's the home of the AT&T Pebble Beach National Pro-Am, a PGA Tour event.

Prior to 2010, the Open will be played at Pinehurst Resort and Country Club (No. 2 Course) in the Village of Pinehurst, N.C., June 16-19, 2005; Winged Foot Golf Club in Mamaroneck, N.Y., June 15-18, 2006; Oakmont Country Club in Oakmont, Pa., June 14-17, 2007; Torrey Pines Golf Course in San Diego, June 12-15, 2008; and Bethpage State Park (Black Course) in Farmingdale, N.Y., June 18-21, 2009.

## Congressional to host U.S. Open

Bethesda, Md. – The Blue Course at Congressional Country Club will host the 2011 U.S. Open Championship June 16-19. The 2009 U.S. Amateur will be conducted at Congressional Country Club as well, using its Blue and Gold courses for the two rounds of stroke play before shifting to the Blue Course for the six round of match play.

Designed by Devereux Emmett in 1924 and renovated by Rees Jones in 1990, Congressional has been the site of five previous USGA championships, including the 1964 and 1997 U.S. Opens.

## Rulewich designs two golf courses in Portugal

Bernardston, Mass. – The Roger Rulewich Group, a golf course design and construction partnership, signed a contract to design four 18-hole golf courses at Parque Alqueva in Alentejo, Portugal for Lisbon-based SAIP.

The golf courses will be part of a 5,000-acre master planned resort community located on the banks of a large man-made lake in Europe that recently was created by the construction of the Alqueva Dam. The low-density, ecosensitive community will feature tennis and golf academies, summer camps, marinas, an archaeological park and a vineotherapy spa, in addition to the public and private golf courses.

Architect Roger Rulewich completed routing plans for all four courses for incorporation into the master plan. Construction on the community is scheduled to start in 2006, and the first golf course is scheduled to open in 2007.

## Hillman Properties to build clubhouse at Wild Herron

Lake Powell, Fla. – Hillman Properties is developing the Shark's Tooth golf clubhouse for Wild Heron, a 734-acre residential community located along the shores of Lake Powell. Influenced by the Coastal Craftsman architectural style, the clubhouse is ahead of schedule.

The 15,500-square-foot clubhouse will accommodate everything from casual lunches to fine dining as well as social events in the grand dining room. Various features include separate lounges, grilles, and locker areas for men and women, and a golf shop. Golf instruction will be available by appointment.

Part of Wild Heron is the Greg Norman-designed two-year-old Shark's



The Shark's Tooth golf clubhouse at Wild Heron is in development.

Photo: Wild Herron

Tooth Golf Course, which has received the Silver Signature Sanctuary by Audubon International.

## Ibis Golf Club gets new neighbors

West Palm Beach, Fla. – La Strada, a new neighborhood of 30 homesites with views of Ibis Golf & Country Club's ninth fairway of The Tradition golf course will be developed by Arthur Rutenberg Homes. Paramount Residential also will develop a 58-home neighborhood with views of the ninth, 10th and 11th fairways of The Tradition golf course. Residents will be able to take advantages of 54 holes of championship golf on three Nicklaus-family designed courses and a 50,000-square-foot clubhouse.

## Ocean Edge club to offer golf school

Brewster, Mass. – Ocean Edge Resort & Golf Club is offering professional golf instruction. Beginning in May 2005, Ocean Edge will welcome John Jacobs' Golf Schools to its bayside location overlooking Cape Cod Bay.

Headquartered in Mesa, Ariz., John Jacobs' Golf Schools emphasize tailored training techniques to meet golfers' individual needs. The schools' teaching systems are based on continuity and consistency, and are delivered only by Jacobs-certified PGA and LPGA Pros who have been trained in the schools' philosophy. About 15,000 students graduate from John Jacobs' Golf Schools annually at 33 locations throughout the world.

The schools will be offered at Ocean Edge through mid-July, 2005. Guests at Ocean Edge will be able to enjoy three-day schools with John Jacobs' instructors. Schools average five hours per day plus optional playing time, and cover all aspects of the game, including full swing, short game, trouble shots, and on-course play.

## Supplier news

A new minidrum container of Bayleton WP fungicide is available through all approved distributor partners of Bayer Environmental Science. The fungicide in the minidrum will cover 25 acres of turf at the low-labeled rate of application. The previous minidrum covered 22 acres at the same rate. Bayleton is



registered to control a broad spectrum of turf diseases, including dollar spot, summer patch and take-all patch.

**Briggs & Stratton Commercial Power** recently hosted a backyard party in Manassas, Va., for Tony Moore, superintendent of Pohick Bay Golf Course. At this year's GCSAA Show, Moore registered for the Briggs & Stratton Commercial Power-hosted Big Block party for 25 to 35 of his friends, colleagues, customers and neighbors. To celebrate the launch of the Vanguard V-twin Big Block air-cooled and liquid-cooled engines in the 25- to 35-hp range, Briggs & Stratton gave away the party that included complimentary food and prizes, including merchandise and a pressure washer.

**Golf Ventures West**, a distributor of agronomic supplies and golf course equipment, opened its fifth location, which is in San Diego.

**International Turf Producers Foundation** raised more than \$37,000 to help support turfgrass research as a result of the "Pull for ITPF Tractor Sweepstakes" at the Turfgrass Producers International summer convention and field days in Harrisburg, Pa. At the convention, Leo Shelton of JMC Landscape Co. in Excelsior, Mo., won the grand prize, which was a 2004 New Holland TN75SA deluxe utility turf special tractor.

**Jacobsen** updated its brand identity with a new logo, a more aggressive corporate philosophy, dealer-support materials, and a Web-site redesign that conveys the brand's heritage and turf equipment, as well as its financial services and customer support. The logo features the Jacobsen name and a stylized blade of grass that have been incorporated into a badge with a three-dimensional effect. Dealer-support materials include print ads, equipment collateral and billboards.

**Lange Containment Systems**, a manufacturer of geosynthetic membranes, celebrated its 10-year anniversary.

**LESCO** opened a new service center in Roseville, Calif. The location is the company's seventh service center in California and the second one opened this year.

Stanton, Calif.-based **Melco Linings** joined the **PVC Geomembrane Institute** as a fabricator/installer member. Melco

Linings fabricates PVC products.

**PFG Golf Finance**, a division of Information Leasing Corp., changed its name to **National City Golf Finance**, a division of National City Commercial Capital Corp. The name reflects the combination of the company's parent company's leasing group: Provident Financial Group and National City Corp. The merger of Provident and National City closed July 1. Chris L. Schauerman will remain vice president of National City Golf.

**The Tensar Corp.** acquired **North American Green**. The deal was finalized Sept. 24. North American Green's rolled erosion-control products mesh with Tensar's geogrids and Geopier foundation systems, both of which provide site development soil reinforcement solutions. Through the partnership and its complementary product line, customers will be able to take advantage of streamlined project design and product specification services.

**Players Turf International** completed the installation of its synthetic tee line at the driving range at the University of Florida Golf Course. Perfect Tee is synthetic turf that was introduced at the 2004 PGA Merchandise Show in Orlando, Fla. The University of Florida project included the installation of 1,200 square feet of tee line, consisting of a 100-foot-by-12-foot area.

The company also launched its PGA Referral Program that allows PGA professionals to earn extra income while introducing their members to synthetic putting greens. The company will provide marketing materials at golf courses and training facilities. It also is launching a section on its Web site designed to assist PGA members who implement the program at their facility. The company will pay a referral fee of \$0.25 per square foot up to a maximum of \$500 per installation to the referring PGA professional. The company also will pay a monetary benefit per successful referral for supporting the program for its members to the referring professional's PGA Section.

## Personnel news

**John LeClair**, superintendent at Warwick Country Club in North Attleboro, Mass., became a certified golf course superintendent designated by the Golf Course Superintendents Association of America.

**Henry Delozier**, vice president of golf for Pulte Homes, was elected president of the Cactus and Pine Foundation at its annual meeting. The foundation is a 501 C 3 not-for-profit organization that supports turfgrass research and scholarships through golf events, grants and personal solicitations. Evie Hill, founder of the Ladybug Charity Golf Tournament, was elected vice president and **David Weinecke**, regional agronomist for the USGA, was elected secretary. Dr. Paul Rowe, a member of the Arizona Country Club, and **Todd Huizinga**, director of golf at Stone Canyon Golf Club, are new board members.

**Archie Lemon**, director of golf operations for Burroughs & Chapin Golf Management, was elected president of the Myrtle Beach Area Golf Course Owners Association. Burroughs & Chapin owns or manages several Myrtle Beach golf courses, including Grande Dunes, Myrtlewood Golf Club, Pine Lakes International Country Club, Tidewater Golf Club, Farmstead Golf Links and Meadowlands Golf Club.



Lemon

**Marsh Benson**, senior director of golf course grounds at Augusta (Ga.) National Golf Club, will be presented with the 2004 Leo Feser Award Feb. 11, 2005, during the general session of the 2005 Golf Industry Show and Golf Course Superintendents Association of America education conference in Orlando, Feb. 7-12. The annual award honors the best superintendent-authored article published in *Golf Course Management*.

**Tammie J. Woster** is the food-and-beverage manager at Circling Raven Golf Club and Coeur d'Alene (Idaho) Casino Resort Hotel.

**Art Campbell**, owner of Rossville, Kan.-based Campbell Sod, became the 34th president of Turfgrass Producers International at the group's summer convention in Harrisburg, Pa. As president of the more than 1,100-member, not-for-profit trade association, Campbell will be responsible for the group's operations.



Campbell



Cranbury, N.J.-based Plant Food Company hired **Gregory R. Moore** as distributor sales manager.

**Brigid Braun** is the district sales manager for Florida and Georgia for Precision Laboratories. Braun, a certified golf course superintendent, will be responsible for the sales and marketing of the company's product line to the golf course, landscape, sports field and public grounds markets.

**Charles Lewison**, a certified golf course superintendent, joined Quality Golf as a senior consultant. Lewison will work with executive director Tony Taylor in all phases of the company's consulting operation throughout Asia.

**Chuck Greif** is the new business development manager for Rain Bird's golf irrigation business unit. Greif will be responsible for evaluating and developing new lines of business to add to the

company's golf product offerings.

**Bryan Campbell** is a new senior service technician for the Northeast region for Rain Bird. Campbell will be responsible for providing technical on-site service and support for all Rain Bird Golf customers located in the region. He will also provide technical training to company distributors, employees and customers. He also will help develop and grow new and existing service business.

**Mike Redmond** joined Reinders' turf division as a turf specialist and will help the company expand into the Minnesota market. Reinders is a Wisconsin-based distributor of commercial turf equipment, irrigation products, landscape supplies, and Morton water softening and ice control salt.

**Michael J. Hoffman** was elected president and chief operating officer of The Toro Co. Hoffman is a 27-year veteran with the

company. Most recently, he had been group vice president of the consumer, landscape contractor and international businesses. Kendrick B. Melrose will continue in his role as chief executive officer and chairman.



Hoffman

The Toro Co. appointed **Steve Stephens** director of marketing for its irrigation division. Stephens will develop and implement the strategic marketing plans for all irrigation division product lines.

After more than two decades of service, **Doug Fender**, executive director of Turfgrass Producers International, retired. During his tenure, the organization grew to 1,100 members in 40 countries. Fender also helped form the International Turf Producers Foundation. GCN

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# Negative to positive

**W**hen something good happens, research shows that the average person will tell three others about his or her experience. But if something negative happens, he or she will complain about it to 29 others.

This is more than an observation about peoples' behavior. From a marketing perspective, this fact shows you that one of the best things you can get from a customer is a complaint. You want complaints because you want to stop the person complaining and prevent him or her from telling 29 people. Even better, one of the best things you can do to impact word of mouth is to turn the person complaining into a fan. You do that – whenever possible – by addressing the issue and making the person complaining happy.

One of the interesting things about a golf course is that the experience is multidimensional for the customer – what a golfer thinks about the course is affected by: the parking lot, the clubhouse, the pro shop, each hole played, the views, the speed of play, the condition of the golf carts, the attitudes of the employees, food and drinks, and more. With all this going on, it's hardly surprising that a golfer might find something he or she didn't like, but also some things that exceeded his or her expectations. Golf courses that identify the disappointment factors and do something about them raise the overall perception of the course.

A key to making this happen is to empower the superintendent and assistant superintendent to be able to respond to complaints on the spot and do whatever is practical to correct a problem or make the complainer happy. For example, if some customers are having a problem with their golf cart on the course, the superintendent can be notified by workers and order them a replacement cart right away, then give the golfers a free round or a free lunch in the clubhouse. This can be as simple as empowering the superintendent to jot a note on his or her business card, sign and date it, and then accept it in the pro shop or clubhouse.

The goal is to turn a negative into a positive as quickly as possible. Referring to our mathematical example, this means that the person now no longer complains to 29 friends, family members and employees where he or she works. The per-

son now praises you to at least three other people – and possibly more. Not a bad turnaround.

The key to this is to get complaints. One way to find out what people think is to give golfers an evaluation form that invites complaints. An example of what a card could look like is below.

## A "did you notice" card

Notice that the sample card below does several things. First, it tells golfers about some improvements that have been made. Second, it tells them that you take their recreation and your job seriously. Third, it asks them, in a nonthreatening manner, to tell you what they didn't like.

Most superintendents will do the first two

### Did you notice ...

Hope you notice the improvements to the bunkers on the 12th hole. We've (state some improvement here). We're constantly working to improve the course and your golfing experience, so we're very interested in your comments about the course conditions and things that could be improved.

**How would you rate your golfing experience today, with one being poor and five being excellent?**

1      2      3      4      5

**Did your golfing experience meet or exceed your expectations?**

1      2      3      4      5

**What could we do to improve the course?**

\_\_\_\_\_

\_\_\_\_\_

**Did anything about the course disappoint you?**

\_\_\_\_\_

\_\_\_\_\_

Thank you for your comments.  
If you would like to talk to me  
please call me at XXX-XXX-XXXX.

Jack Smith  
Golf Course Superintendent

Your Golf Course

steps, but the third step is the critical one. No matter how busy you are, do you really want to let people's complaints go unnoticed and not be addressed?

Certainly, you cannot take care of every complaint or concern of which you're told. But even if something cannot be done to correct a complaint because of budget constraints or the like, you can listen, explain the situation and tell the person that you will pass his or her comment on to the green committee or the course owner or manager.

It all starts by asking for the negatives. To do this, print the "did you notice" cards every three months for a 10-day period (two weekends and one week in between to make sure you get a good sample of all golfers). If possible, include the most recent maintenance steps or course improvements. Print each survey on a different colored paper to help golfers recognize a new survey.

Place the cards in the pro shop, in the clubhouse and on golf carts. Have your starters hand them out and have someone ask for them when they come in off the course. As an incentive, offer golfers a free drink for completing one or put them in a daily drawing for a free round of golf or a \$25 gift certificate in the pro shop. You might be surprised at the information you get.

Can you take care of every complaint? Unfortunately, the answer is "no," but even in an extreme case, you can take some of the sting out of the person who is complaining.

One course that I worked with had a golfer who nicked up a new set of Big Bertha clubs. The soil on the course was rocky and the golfer's deep divots created speed grooves in the club heads. The golfer wrote a scathing letter to the course and complained to other golfers. The owner sent the golfer a nice shirt from the pro shop along with a note saying they were sorry about the damage to the clubs and that they hoped he would continue to golf there. The note and gift didn't resolve the golfer's problem, but even so, the gesture shows concern for his complaint.

Making the effort to do something at least shows you're listening, and that step alone can help reduce the tension and possibly get a dialog started. GCN



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





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@jeffreybrauer.com](mailto:jeff@jeffreybrauer.com).

# Cart path design

**A**t one time, you've probably contemplated adding cart paths to your golf course. If you don't have them, you should because every new course I've built without them adds them within a year. But you shouldn't add them without a master plan, or if you're 99-percent sure no major greens, tees or bunkers will be moved or added, because your cart paths must be completely integrated with your design to work as intended.

The trick to laying out cart paths is to defeat the straight-line mentality by providing many equally attractive entrance and exit points. Golfers hit their shots in different directions, so unless you inadvertently limit their access from primary play locations to the cart paths, this isn't difficult. Nonetheless, all golfers eventually go to areas such as greens, landing areas and tees. That traffic increases your maintenance challenge.

While you can't eliminate problems, intelligent design minimizes them. Here are a few tips.

**Strive for easy circulation** first and concealment second. There's little sense in designing a path where no one drives. Of course, this doesn't mean running cart paths down the middle of the fairway.

**Direct routes.** Paths veering sideways more than forward invite shortcuts without blockage. Paths should be as direct as possible. If the next tee is right of the green, the path should be on that side.

**Gentle curves** fit the landscape, look better and drive easier. You should be able to drive your truck comfortably at 15 mph and at a minimum radius of 120 feet. Broad curves spread wear better. Sharp curves encourage narrow exit/entry points and often draw attention. Strive to create unencumbered, relatively level access equal to two feet per thousand rounds. Generally, one broad inside curve midway between the tee and fairway landing area or the landing area and green encourages a variety of entrance/exit points distributing traffic better.

**Limit obstructions** such as trees, mounds or bunkers between paths, tees, fairways or greens because they funnel traffic. If you want to hide a fairway path with an earth form, use a long, gentle ridge rather than a series of humps because carts will inevitably funnel through the valleys.

**Remove trees** if necessary to maintain minimum radii and keep tree trunks five

feet from the pavement to avoid cart dents and roots from damaging pavement.

**Limit slopes** to about 15 percent where practical and avoid steep drop-offs near the paths for safety.

Cross fairways if necessary, avoiding prime landing areas. This increases fairway accessibility and can usually be hidden.

#### Green-area paths should:

- Be located 40 feet to 60 feet from the green's edge. Any closer affects play and invites short-cutting inside the path.

- Have curbs at tees and greens to control traffic and avoid small pull-out areas that concentrate traffic. Pave the paths to 10 feet to 12 feet of the full length of the natural entry points.

- Enter near the back to move players ahead, minimizing delays.

- Avoid entry through main drainage ways, narrow mounds or to a small portion of the green.

#### Tee-area paths should:

- Be 25 feet to 40 feet from and parallel to the tee edge, making all areas equidistant and similarly sloped from the tee.

- Avoid narrow access routes and steps.

- Minimize visual distractions and avoid the line of play.

- Minimize vertical climb. If the tee is raised, raise the cart path.

- Extend a gentle curve well past normal exit points in partial cart paths areas because abrupt ends concentrate exiting traffic.

#### Fairway-area paths should be:

- 40 feet to 60 feet from the fairway at main entry points and further in other areas, blending convenience and concealment.

- On the right side of the fairway where possible.

- On the side with the fewest obstructions (bunkers, mounds, etc.).

- On the outside of doglegs out of play, unless they can be hidden on the inside.

- Shaded by trees between exit areas for concealment.

- Near fairway level to assure convenient access. Being slightly above the fairway allows golfers to see their balls from the cart, quickening play.

- Routed away from dangerous areas such as high-play zones of adjacent holes and

hazards such as steep drop-offs.

#### Conceal paths by:

- Shading them with trees.

- Tilting them away from view lines and/or using low ridges to hide them in open areas. It's often easier to conceal a path crossing the fairway than one paralleling the line of play.

Where cart paths must be visible, avoid sharp vertical and horizontal alignments for best appearance. Because many golfers will travel the route, it should feature views of natural highlights such as trees, waterfalls, rock outcroppings or landscaped areas.

You also should use high quality construction materials, adequate pavement thickness with reinforcement and proper expansion/contraction joints. Concrete might be more expensive than asphalt, but it lasts longer and requires less maintenance.

And don't forget drainage. Many courses retrofitting with paths inadvertently block drainage patterns, but building paths with swales and drainage inlets on either side avoids this. Don't use paths as drainage ways because wet pavement isn't as safe and drainage accelerates, causing erosion at exit points. If necessary, use catch basins in the pavement with curbing to trap water. Remember to handle drainage well away from heavy traffic areas such as greens and tees.

**You can further aid agronomic impacts of carts by:**

- Routing cart paths on the south and/or east sides of fairways, tees and greens in wooded areas,

allowing morning sunlight to reach these areas.

- Using green-to-tee cart paths through wooded areas as wind slots by aligning them with breezes to provide air circulation.

Make sure your irrigation system favors the cart path side of the fairway. Insufficient irrigation combined with the stress of additional cart traffic will kill turf quickly.

If you're contemplating additions to your course, these basic guidelines will give you a good start. The most convenient route might also pose some safety problems, especially at older courses where cart paths were never contemplated during routing design and hole spacing. Use these general guidelines and common sense to determine your best cart path routing. GCN

**STRIVE TO CREATE UNENCUMBERED, RELATIVELY LEVEL ACCESS EQUAL TO TWO FEET PER THOUSAND ROUNDS.**



# Career Web sites

**M**y column in the September issue of *Golf Course News* introduced the concept of the golf course superintendent (and the other professionals in golf as well) committing to the development of a personal career Web site. Since then, I have received calls and e-mails asking how this might be done and at what cost. So, I will address these questions.

Web-site counseling is available via the Internet and professional consulting services. Enterprising superintendents can develop their own Web site at almost no cost. This possibility should be explored for its educational value before seeking professional assistance.

Because of the technical nature of superintendents' work, they should be prepared to write a sizable portion of the Web-site text after a consultant organizes and formats the Web site. A solid, representative Web site can be developed for about \$500. More sophisticated Web sites can cost as much as several thousand dollars.

## A student Web site

This is for students seeking assistant jobs. The later college years present the first opportunity for career-minded students to commit to the preparation of a Web site because the development of one's life track record is well under way at this time. Accordingly, a student Web site might focus on:

- A consolidated, high-school profile listing noteworthy grades, honors, elected positions, projects undertaken, writings, jobs, hobbies, golf participation, level of computer literacy and community service.
- An expanded profile of the student's college years focusing on and further developing the same items listed within the high-school profile, but putting added emphasis on: (a) the quality of school attended; (b) the specific degree earned; and (c) situations that present the student as a person taking initiative and assuming leadership roles.

An effective, personal Web site will present students as unique job applicants instead of being viewed as one of many uncredentialed candidates applying for an assistant position. Web-site-bearing candidates will draw attention and practically assure themselves an interview, which is the name of the game at every employment level.

## An assistant Web site

This is for assistants seeking superintendent jobs or better assistant jobs. The assistant Web site isn't intended to be a new, start-over Web site; rather, it should be a continuing extension of the student Web site that strategically expands on the activities initially presented. However, it would be appropriate to convert the student Web site to a link within the assistant Web site so viewers will be able to focus on an assistant's current work product better.

With this housework completed, specific notice should be given to the following:

- A concise expression of the assistant's career-mission statement.
- A profile of the club(s) and/or course(s) where the assistant has worked, which should include: private versus public status, grass types, number of rounds per year, totals of operating and capital budgets (if public knowledge), noteworthy tournaments hosted, and a mini-profile of the superintendent's credentials.
- A profile of the assistant's job description for each job held, any titles earned, and positions within chains of command.
- Special assignments and projects undertaken by the assistant and what role was filled within these assignments. Digital photographs should illustrate special projects completed.
- A listing of industry-related seminars and workshops attended, as well as a list of the textbooks, videocassettes and CDs collected within the assistant's personal library.
- What commitment has been made to continuing education.

Clearly, the more initiative assistants take with their careers, the better the Web site will reflect a creative maturing professional.

## A superintendent Web site

This is for superintendents seeking to advance their careers via better job opportunities. Again, the earlier practice of continuing and extending the information presented within earlier Web sites should continue, with the assistant Web site being converted to a link within this process.

The primary purpose of developing a personal Web site at this point in a career is to definitively present what impact superintendents have had on golf courses and properties they've accepted responsibility for when starting each job.

Accordingly, this Web site should focus

on a combination of following: the superintendent's approach to and results with general management, crew training and safety, efficient budget management, computer systems and record keeping, expanding commitments to playing golf and the Rules of golf, where assistants have found worthy jobs, family status, and off-season priorities.

This is the most critical Web site within an advancing superintendent's career. A Web site that concisely reflects decisive decision-making and planning in the pursuit of excellence will open the door for job advancement.

## A veteran Web site

This is for more experienced superintendents looking to secure present jobs and for those seeking job advancement. Because the most constant challenge to experienced superintendents' job security is their higher salaries when good, lower-salaried superintendents are available, it's imperative veteran superintendents clearly demonstrate that their general-management style and highly efficient, budget-management practices (using computer graphics appropriately) will save much more money than their salary increment will cost each year.

Accordingly, this continuing Web site should artfully show, among other things, that superintendents remain completely active in their jobs and that no one else is a more efficient manager of the sizable amounts of money committed to the maintenance program each year.

Enlightening Web sites can save veterans' jobs and present superintendents in such a renewed light that they will be looked at as invaluable assets to current and prospective employers.

Superintendents developing personal Web sites for the first time relatively late in a career should prepare student and assistant links as profiled above.

Never in the employment history of the golf industry has a professional had a better opportunity to present credentials more effectively on a better stage than now via a personal Web site.

As the invention of the wheel changed the way the world operated, so too will the use of personal Web sites change the way the employment world functions in golf. The era of overloading resumes is over. GCN



Jim McLoughlin is the founder of TMG Golf, a golf course development and consulting firm ([www.TMGgolfcounsel.com](http://www.TMGgolfcounsel.com)) and is a former executive director of GCSAA. He can be reached at [golfguide@adelphia.net](mailto:golfguide@adelphia.net).



# Three's company

TEAMWORK, UNDERSTANDING AND RESPECT ARE NEEDED AMONG SUPERINTENDENTS, GENERAL MANAGERS AND GOLF PROFESSIONALS FOR MANAGEMENT TO WORK BEST

by  
JOHN  
WALSH

**Q** How many superintendents are at a facility with a general manager and a golf professional?

Typically, if there's a general manager, it's a private club or a resort course or something like that. Maybe half the clubs in the country – or maybe 5,000 or 6,000 clubs – are set up in that situation.

You get two different systems: the triumvirate management system and the g.m./chief operating officer concept. Most municipalities and the ma-and-pa courses don't fit that type of system, so you have to rule most of those out.

Then there are some courses that have the director-of-golf concept, which is usually the golf professional as his supervisor. It's not always like that, but he has supervision over the golf course as a part of his duty in some cases. In California, the g.m. system is the majority. Coming from Chicago, it's the minority there – more of them would be in the triumvirate management system.

**Q** In that system, who answers to whom?

In a true g.m. concept – and that's a problem: Some of these are quasi-g.m. concepts – there's no question in the organizational chart that the g.m. runs the business as the c.o.o. or chief executive officer, and the superintendent and golf professional typically report to him. In a quasi-g.m. concept, sometimes a person has a g.m. title by name but not necessarily by responsibility, and then the superintendent or professional might report to the board or to committees.

**Q** Is the industry experiencing more of the quasi-setup?

It appears more organizations are moving toward a true g.m. concept rather than some form of it.

**Q** To make the business structure more clear?

Usually, you have a president of a company or a c.o.o. or whatever the title might be, and we all report to somebody. So no matter what structure you work in, a golf course superin-

tendent ultimately reports to a green committee, a board of directors or a g.m., and in some cases, a director of golf.

**Q** Because there's a superintendent, g.m. and pro at many facilities, is there a power struggle among them? And is there a perception that the three don't get along?

The key word is 'can.' There can be. It's just like you can have a happy marriage, and you can have an unhappy marriage. Many times, the choice is yours, and if there are struggles, they typically exist because there's a lack of mutual respect among one another.

I've taught seminars for years for the PGA of America, the Golf Course Superintendents Association of America and the Club Managers Association of America, and one of the things I like to key in on is the importance of mutual respect for a team to work together. I need to appreciate the roles the golf professional and g.m. play, as well as understand their challenges and what's going to make them successful. I need to put myself in the position that I can try to contribute to things that are going to make them successful, and, in turn, they're going to operate the same way with me. For example, when it rains in Southern California and I haven't had rain in five months, I'm a pretty happy guy. But how happy is the golf professional? He has to cancel his lessons that day. Different things make us happy, but we have to appreciate what's good for the other person.

**Q** Because everything is linked together?

Everything is linked together, and where some people lose sight – and you hope they never do – is success of the operation, not the individual. Golf is a business. It's a sport, but it's a business. And unless you're able to run the numbers through a golf facility – keeping carts running the number of days you need to, serving what you have forecasted in terms of meals and beverages – to generate the revenue you need, it takes everybody working together to make that happen.

**Q** So the big picture and working as a team are important?

That's right. But I don't want to paint this picture because someone will say, "That's not my golf course." So I have to say that with a caveat. In some cases, superintendents have been satisfied staying in the distinct area of the golf course and golf course maintenance.

The superintendent that will fair well in the future will have a much improved understanding of how the total business runs. When I say that – knowing what membership numbers are and how many years of a waiting list there is, knowing what the cash flow of the operation is, knowing the challenges they have in scheduling events and understanding all the different aspects at many places – it's the superintendent who only takes care of the golf course and is unaware of some of those other areas who will fall behind. So when a business, especially a golf course, is being challenged financially, a typical thing is to reduce expenses and increase revenues. We can be a part of that, and we can assist in that area if we have a pretty good understanding of it.

**Q** Are you saying the perception of the three not getting along depends on the course?

When I assisted the PGA with a golf course operations manual, I tried to say that it goes back to mutual respect. We have different roles, and we have to understand that we serve at different capacities, but the end product is a result of different ways that we are approaching and attacking things.

What makes me happy? Having only 20 players a day or being closed on a Monday – those things are good for superintendents because they're good for turf. But what good is that if you can't pay the bills at the end of the month? I used to caution some of the young apprentices that would work for me, and they would say, "We could get something done if it wasn't for all of the damn players out here," and I said, "Kiss the ground those players walk on because if it wasn't for all of those players, we wouldn't get a paycheck every two weeks." You have to understand that we're not just an expense area in a business, we are a revenue generator by producing good,

GOLF COURSE NEWS  
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Photo: Bruce Moir Photography



quality conditions and how that fits in the overall picture of the club budget versus the golf course maintenance budget.

Back to the point. It's almost like a marriage. When you find two people that have the most blissful, wonderful marriage, it doesn't get any better than that. The same thing is true with the professional/manager/superintendent relationship. But when you find one that's bad, there's no fixing it.

can I do to make your job easier?" it might turn the tables around.

**Q What would be the ideal relationship between the three?**

The ideal relationship is a clearly designated chain of command. So, do I report to three different people, do I report to one person? Does everything flow through the g.m. and back to my peer? For example, if I need to

and talk to people. Those are important.

One of the things we do at our club is bowl together once a week – the golf pro, the g.m. and myself. That says a lot to build personal relationships that are outside of the business. I've got a new g.m. who came here about eight months ago. But prior to that, our other one was here for 35 years, and we tried to play the golf course together once a week.

I'll add the caveat I give when teaching seminars: If you go out to play golf with your superintendent, g.m. or director of golf, and for 18 holes, you show them everything that's wrong, they're going to be busy next time you want to play. If you go out and enjoy yourself, perhaps when you get done, later that day or the next day, say, "Hey Fred, when we were out there playing there's a couple of things that I noticed. Help me understand these things." Part of it isn't what we say, but how we say it.

**"People should get off the idea of who is more important and who's worth more. For an operation to succeed, everyone must work together."**

**Q And that stems from one or two of the three not understanding the big picture and not having respect for the others?**

Well, usually it's a lack of respect – that's a part of it. Other things that breed contempt are territorialism – when people say things like, "It's not my job," "It's only me," "That's your problem not my problem."

**Q What advice would you give to superintendents about understanding the big picture and respecting the g.m. and pro?**

Before becoming superintendents, people should spend a couple weeks in other people's shoes. They should see if they can work in the food-and-beverage center and in the pro shop to understand what the people talk about when they have complaints about the golf course. They should understand what it's like before a shotgun start from the golf professional's eyes.

I was fortunate. I started as a caddy, worked for a golf professional for three or four years, and worked with soft goods merchandising and dealt with customers. Then I worked for a superintendent who was a g.m., who said, "You need to get inside and see the food-and-beverage side of things." So I worked on the golf course for four or five hours, then I went in and was a waiter during lunch, and I went back out on the golf course when I was done.

So anybody who gets a broad scope of things, it's going to be extremely beneficial to them in their career. That's good when you're 21, but what do you do when you're 25 or 30 while you're a superintendent and you get into relationships? Walk a mile in another man's shoes. Try and figure out his challenges. If there's no communication, you're never going to find out. But, if you ask questions like, "What can I do to assist you?" and "What

have something done through the pro, do I work with him, or does it flow back to the g.m. and the g.m. gives the directive? I'm not saying one system is going to work better than another, but understand the system.

Certainly, a second feature is communication. The worse case scenarios are the water-cooler meetings in which I see the pro or manager everyday for about five minutes and have a cup of coffee together. The organizations that I've been involved with and serve better have normal meetings and agendas. For example, when a tournament is coming up, a prospectus should let everybody know what role they play, so everybody knows what each person is doing.

**Q Do superintendents not get the credit they deserve many times because the pro and g.m. have more visibility to the public?**

Yes, but sometimes it's their own fault. For years, the GCSAA has had an image campaign, and it talks about public relations. There's a feeling that the association is going to solve that for the member. The reality is the association can only put the tools in superintendents' hands, and then they have to have their own grassroots public relations campaign. So whether it's getting your name on the scorecard at a new golf facility, addressing the ladies about the flowers on the golf course or attending the men's scratch league to discuss green speed, you've got to develop your own public relations program. And there's nothing wrong with spending time around the first tee after a shotgun start. You have to make your own opportunity and capitalize on it.

There's a lot of guys that do it well, but as a whole, more people need to do that. Some do it by playing golf with members, some do it by dining or having lunch at the snack bar or grill. You have to be able to field questions

**Q Do one of these three tend to stay longer at a course? And how does that relate to their relationship if somebody new arrives?**

The average tenure at a club for a manager is about three years; for a superintendent, it's about seven years; and for a golf professional, it's about five years. Why is it that way? Well, in some cases, the superintendent can be the one with the most experience at a club, and that has its good and bad sides. He's an established person there – that can be a good thing, but it can be a threat to some people. I can't imagine it being a threat, but a small thinker could think it's a threat. Somebody that has 150 acres to manage and knows it like the back of his hand is nothing but a benefit.

**Q You mentioned the g.m. What's his name?**

Our new g.m. is Kirk Reese, and the pro's name is Jim Schaeffer.

**Q What's your relationship with them?**

I'm in one of those marriages that's blissful – it doesn't get any better than this. That's the kind of guys I'm working with. It hasn't always been that way in my career, but where I'm at right now, it's extremely blissful. They are great guys to work with – they're professional. We work hard, produce an excellent product and do it with teamwork. As I mentioned earlier, I bowl with these fellas. We've gone on golf junkets together, play golf together and eat lunch together. When you're spending more time with the people you work with than you probably are with your family, which is not uncommon in this business, you have to work together and get along.



**Q What's the structure like?**

We are in a true g.m. concept. I report to the g.m., and the g.m. reports to the board of the directors. I don't report to a green committee. But where I came from, in Chicago, I reported to the green committee chairman and the board of the directors. The manager was a clubhouse manager, and he just oversaw the food and beverage.

**Q What at your old job wasn't as good as what you have now?**

Let's not speak about the downside of the old job, let's speak to the upside of this job that I've had for 7½ years. We don't miss a beat in the formality, planning and organization of what we do. Everything flows through the g.m., who goes over all of the details that need to be taken care of for every function. Not on a day-to-day basis because people run their own functions, but when it comes to the big events, we'll have a meeting with all of the department heads and sign off on everything. The formality of the organization is fantastic. I love working in that environment.

**Q Is it easier for a superintendent to do his job when there's a structure with a g.m. and pro, or is it easier when a superintendent is doing his own thing?**

Every course is different. I'll give you an example. I worked for Frank Dobie at The Sharon (Ohio) Golf Club. He's a nice guy and one of my mentors. He's a g.m. at a club that only serves lunch, not dinner. They do most of their golf six months out of the year. He's a g.m./superintendent, and that's the right fit for that club. They don't have a swimming pool or tennis courts. All they have is golf. They are getting two for one: One guy overseeing both jobs, and that's great.

When you end up with operations that have a small golf shop and a snack bar or grill rather than a full-service restaurant with 1,500 covers on a busy day, they might have a different fit. When you have something that has an independent food-and-beverage operation that's profitable, obviously you have to have greater structure.

**Q So basically, the larger the facility, the larger the operation and the more likely you are to have a three-tiered management?**

Yes, and I'm not an advocate of one or the other. First of all, when you get hired somewhere, you don't have a lot of choices to decide the governing system. But you have a choice to change, if necessary, to fit into that governance model. I come from a triumvirate management system, and I can say, "This

will never work, I don't like it, I don't know why I have to do this." But you shouldn't go there if you can't make that adjustment.

**Q So you have to be flexible and fit into different structures?**

Right. We each have our roles. Part of my role in the g.m. concept is to provide a strong department and a good product and try to make my boss look good.

**Q What about salary? From what I understand, in years past, the g.m. always made more money than the superintendent, but now the superintendent is coming up to parity with the g.m., if not, in some instances, making more.**

It can go a couple ways. If someone is a true g.m., that person should be compensated at a higher level than the superintendent. That's not my opinion, that's just how business operates. The person at the higher end of the organizational chart has more responsibility and more people reporting to him because they're overseeing not just the golf course, but food and beverage and everything else. So, it's logical that they are compensated accordingly. Many people wouldn't debate that. When you get into the triumvirate management system, sometimes there's disagreements about how people are compensated. Everyone thinks their turf or area is the most important part of the job. Some of it has to do with longevity of the job, but I know more than a few cases where superintendents make more than their counterparts at a golf facility.

For example, I know some superintendents that make more than the professionals they work with. I know superintendents that make more than the clubhouse managers that they work with. Is that the majority? No. It's not so much about making more, it's more about some level of parity and trying to be compensated for what the standard is and the norm in your area. What's the going rate for a golf pro in a city like Chicago? Well, if you want to hire one, you're going to see what they're paying at other clubs—same thing with a superintendent or g.m. The histories show that at least the majority of g.m.s are paid more than the superintendents, but the gap between the two of them isn't that big.

**Q Does it go back to respect of the g.m. knowing how much the superintendent makes, and the g.m. being able to understand that even though he makes more, the salaries might be fairly close?**

I'd hope my peers would be happy if they're working for a g.m. where he or she is fairly

compensated and not worry so much about being even with them, but working for an organization that does its homework to make sure people are compensated fairly. No matter which way we look at it, some people might squabble and say, "How come so and so is making more than I am?" Don't worry about other people, worry about your own situation. If someone else in the organization, whether it be a golf professional or g.m., is making more than you, you can look at it as either the cup being half empty or half full. I'm happy if the g.m. or pro is compensated fairly because that means that I'm working for people that are going to compensate me fairly. Don't worry about what they get, take care of yourself.

**Q Do you attend board meetings? Are superintendents a part of board meetings more, and if so, how are g.m.s reacting to that?**

I don't attend board meetings, but I attended every board meeting at my prior job. It's a different way of looking at things. The minutes of the green committee meetings, which I attend, are forwarded and are dealt with at the board level. So the g.m. speaks for the organization and my department at the board level. I'm comfortable with the former and the current g.m.s carrying our message properly. But I have seen more superintendents in the triumvirate management system attending board meetings than I did 20 years ago.

Many successful clubs share their financial information with the golf course superintendent and other department heads on a month-to-month basis to show the direction the business is going. You can't take golf course maintenance and do it independently without seeing how it fits into the bigger picture.

**Q Anything else that's important?**

People should get off the idea of who's more important and who's worth more. For an operation to succeed, everyone must work together. You can't have a food-and-beverage operation that doesn't get along and communicate well with the golf course maintenance operation. I can guarantee that if you're at a club and the pro, superintendent and g.m. don't get along, one or more of them will be gone. And why does it have to be that way? For you to work well with your fellow people, you have to make them want to be successful. So, if there's jealousy, animosity or contempt, it's probably not going to work. GCN

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# The future course

## GOLF COURSE DESIGN CHANGES REFLECT MARKET DEMANDS AND MAINTENANCE COSTS

by  
JOHN  
WALSH

**G**olf course design changes during the next five to 10 years might not be drastic, but there will be changes that will affect superintendents' approaches to maintenance and their budgets. Shorter courses, fewer bunkers and narrower fairways might be some of the changes that occur, in addition to updated greens and tees. But no matter what the changes, golf course conditions will continue to improve.

Brad Kocher, senior vice president of golf course management for ClubCorp and v.p. of grounds and golf course management at Pinehurst Resort in N.C., says the industry

will continue to push to have the fewest amount of acres and still have nice courses.

"Fewer acres of golf course mean less maintenance, chemicals and water," Kocher says. "A golf course that uses 200 acres – you won't see that that often."

Bill Love, president of the American Society of Golf Course Architects, agrees with Kocher and says the industry will focus on resource conservation when developing courses.

"It's important now, but were refining it," Love says. "There's more design with resource conservation in mind. But the biggest thing to deal with is to reduce the area and adjust to

new technology with equipment. When designing golf courses, we need to make it easier and cheaper to maintain them."

### Locations

Recently, there's been a trend of developers building courses in residential communities, and that's expected to continue.

"Most of those courses are financially productive," Kocher says. "The best return on investment is when 18 holes are tied to residential real estate."

Love says architects should look at how they approach residential golf courses.

Golfers would like to see fairways become wider to accommodate their drives. However, wider fairways are more expensive to maintain, and some superintendents are under pressure to narrow them.

Usually, there are between four and six tees boxes on a golf course. This is a result of golfers hitting balls farther and to accommodate golfers with different skill levels. It also gives a course diversity and excitement.





"We need to keep costs involved with building and maintaining golf courses down," he says. "We need to make a viable amenity in a community."

Kurt Huseman, executive v.p. of the project development group for Landscapes Unlimited, a golf course building company based in Lincoln, Neb., says developers look at golf courses as a way to sell more expensive real estate, but he also sees another trend.

"We're seeing more of a hospitality component in golf course development," he says. "Golf course clubhouses will be part of a hotel, and developers will be putting hotels on golf courses so the business traveler has a recreational outlet. It's a way to capture rounds and roomnights."

Courses will be built in other locations as well. Upper-end golf courses, which are a small portion of development, will be developed in remote areas, such as Whistling Straits in Kohler, Wis. Additionally, environmental rules will force golf courses to be located in areas

that are considered derelict sites, according to Jeff Brauer, a licensed golf course architect and president of Golfscapes, a golf course design firm in Arlington, Texas.

Love agrees with Brauer and says more golf courses will be developed on degraded sites, which can be more than a quarry or landfill, for adaptive reuse.

"To retrofit a landfill to a golf course isn't the easiest thing to do," Love says. "The cost can be higher than you may want if you have to remove trash and contamination. Golf course construction can be folded into remediation, but the grade might be ready for a golf course, which can save money."

Sheer rock cliffs are an example of not tampering with grade. Love suggests developers incorporate them into a course landscape instead of eliminating them.

### Length

The length of golf courses is a popular topic lately. Many wonder, with golfers hitting balls

farther, how much longer courses will be. But with length comes expenses such as land, development and maintenance costs.

Doug Winfield, a mechanical engineer who designs golf equipment, says there has been a big increase of length on championship golf courses, which are about 7,600 yards long on average. However, he says there will be an emphasis on strategy because not every hole can be 480 yards.

"It's hard to make a 7,600-yard course for a normal golfer to enjoy," Winfield says. "The hazards don't make sense for some golfers on courses that are that long. But tournament-level torture tracks are popular. You don't see many shorter courses. There are too many golfers that want to play at their own pace."

"Because more land is needed to build a championship golf course, there's a greater need for residential development to finance the development of the golf course," he adds.

Brauer says people eventually will realize that long lengths are needed for only 1 per-

The number of bunkers on a course is related to the cost of golf. Some in the industry think there will be a trend of courses using fewer bunkers for economic reasons.

Greens are becoming faster because of golfers' demands. In the future, there will be an increased emphasis on pin placements, green size and contours to challenge golfers.

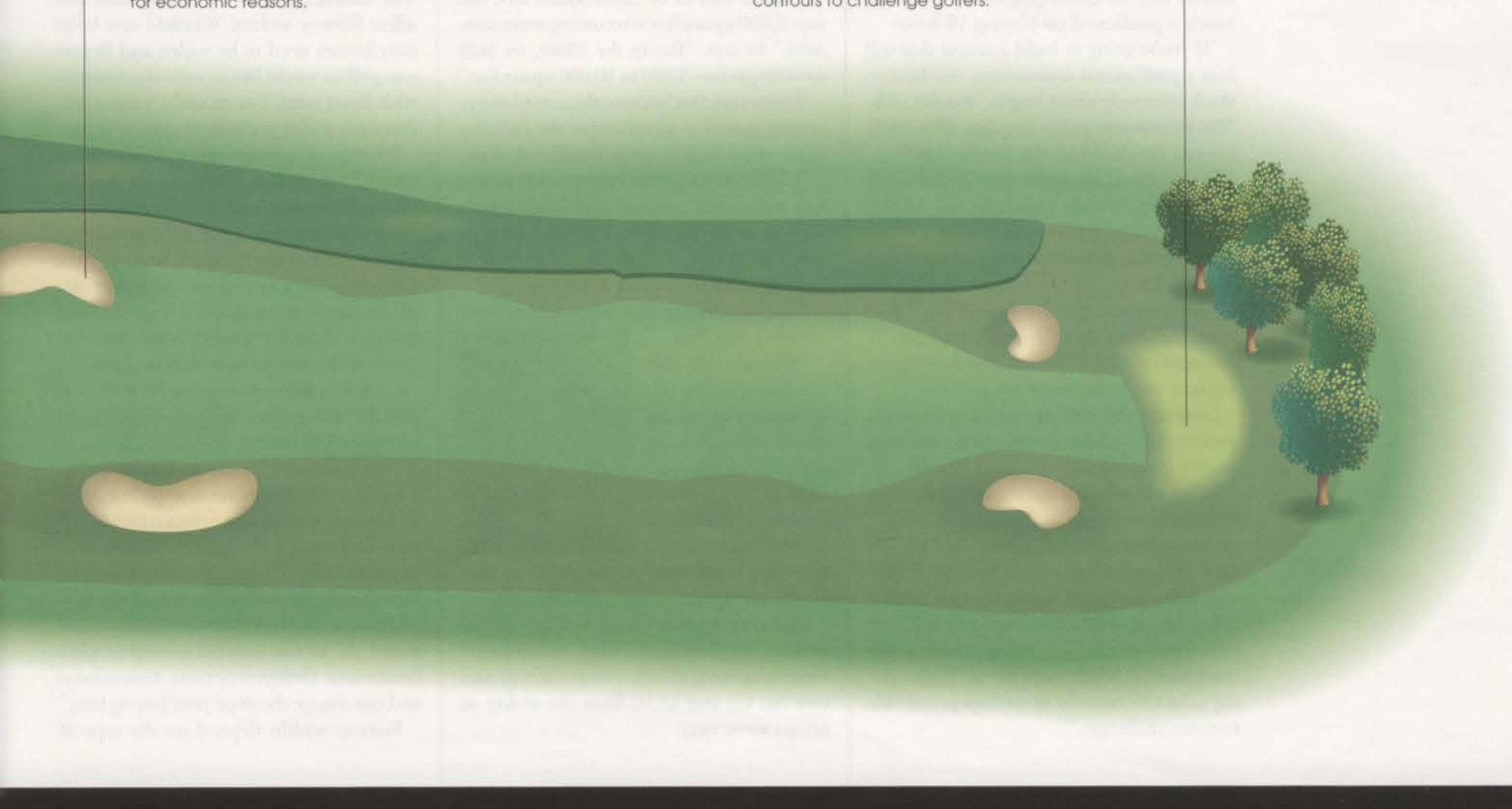






Photo: Landscapes Unlimited

The number of bunkers on a course is tied to the cost of golf. The industry could experience a trend of fewer bunkers on golf courses.

cent of golfers, who are professionals. He says they seem to like to play 7,300-yard courses.

"We will come to our senses and won't use the back tees [on those long courses]," he says. "Overreaction will settle, and the back tees will stabilize to 7,250 yards."

Kocher says shorter courses will be mixed in with longer ones.

"If I was building a 36- or 54-hole complex, one course wouldn't be as long as most courses seem today," he says. "You can't be under 7,000 yards if you're developing a course, yet amateurs are enjoying those types of long courses less. I'm not sure if a short course will be developed all by itself. So much is predicated on playing 18 holes."

"If you're going to build a course that will host a professional tournament, you have to think differently about length," Kocher adds. "Pro tournament golf is in a class all by itself, but you can't build courses just for that."

Stan Zontek, an agronomist and director of the Mid-Atlantic region for the USGA Green Section, says a result of longer drives is the blurring distinction between par-4 and par-5 holes.

"Years ago, a par-72 would be 7,000 yards," Zontek says. "Now you see par-71 courses that are 7,400 yards. Par-5s are turning into par 4s for some pro golfers."

Love says the industry needs to focus on presenting a challenge to golfers without adding extraordinary length to courses.

"Cost is significant, and the answer is not to make courses longer and wider just because people are hitting the ball farther," he says. "We need to come back down a bit from the 7,500- to 7,600-yard range, but it depends on the ruling bodies of golf. Some controls will have to be put in place. We're going to have to put the brakes on where we're going. There's going to be a lot more focus on doglegs and hills to create challenges."

Huseman says the 7,300-yard average length course will remain constant.

## Greens

Greens are probably just as hot a topic as course length, if not more, and this area will experience change as well. Winfield says greens are much faster than they used to be and superintendents keep reducing mowing heights to meet golfers' demands.

"What happens on the PGA Tour trickles down to the recreational courses," he says. "The ability to maintain courses has made quantum leaps, and there have been many agronomy enhancements."

Brauer says greens must have a slope of 1.5 percent for drainage and that while many greens are flattening, the average golfer likes contour.

"I haven't flattened my greens as much as some others have," he says. "They don't have to be as flat as 0 percent to 1 percent. Contours can be used to feed the ball to the pin. Greens no longer slope from back to front to help a shot. Slopes from right to left and pin positions can combat extra large greens."

"We're going to find that architects will be making greens harder with reverse slopes," Huseman adds. "I like the idea of going back to smaller greens, but I don't know if I see that trend."

Greens have grown throughout recent years, according to Zontek.

"Greens used to be 5,000 square feet, and now 8,000 square feet is becoming more common," he says. "But in the 1960s, we built monster greens—9,000 to 10,000 square feet."

Brauer says that because the cost of maintaining greens is so expensive the industry needs to go back to more functional sizes.

"I'd like to get greens below 5,000 square feet with fewer contours and larger greens with more for the sake of variety," he says. "I'm not afraid to be eclectic: a few small, a few large and everything in between."

Pin placement is also important as it relates to green size.

"We want to be able to create different pin placements so you can spread the traffic out and prevent the golfer from getting bored," Love says. "There's an infinite amount of variety for pin placement so the golfer can have a different experience every time he golfs."

Kocher says greens can get smaller and one reason is because new ultradwarf Bermudagrass and high-density bentgrasses (the As, Gs and L93s) have the ability to accept more wear.

"I'm influenced by [golf course architect] Donald Ross, but I see designers incorporating short-cut roll-off areas around the green," he says. "More people like that penalty more than missing a green by five feet and being four inches in rough."

Zontek says ultradwarf Bermudagrass and the Penn A, G and L93 bentgrasses allow faster green speed, but he doesn't know where it will end.

"[Golf course architect] Tom Marzolf is developing guidelines for greens," he says. "He says his clients want 10.5 on the Stimpmeter. People think faster greens equal good greens. It's a catch-22. I don't know how we're going to change golfers' perceptions."

"It's amazing what they do with grasses," Huseman adds. "They are using TifEagle Bermudagrass on greens in Texas to make them faster."

Green location also is important to realize is the design process.

"There's a realization that you need enough sunlight on new greens and you can't tuck them back in a shady nook," Zontek says. "Greens have been put in bad locations."

## Fairways

The distance golfers are hitting balls also affect fairway widths. Winfield says holes near houses need to be wider, and Brauer says golfers would like to see wider fairways with fewer trees, but recently, superintendents are under pressure to narrow them.

"Narrower fairways can reduce maintenance," Brauer says. "It costs a lot more to maintain fairways than rough even though there is better and better maintenance on smaller areas of the fairways. Reducing the size of the fairway and increasing the size of the rough saves water. I hope to keep fairways wider but smaller is the trend because of the money to maintain them."

Love says fairways have to be wider, especially with golfers using new equipment to hit the ball farther sideways.

"We need to widen the landing areas, but I want to accommodate new technologies and reduce maintenance requirements," he says. "It's a tough thing to do. You have to be careful when designing a course to make sure the narrow and wide areas of the fairways are in the right places but aren't cookie cutter. All of this is based on topographic conditions. Design is not one-dimensional and can change the slope your hitting into."

Fairway widths depend on the type of



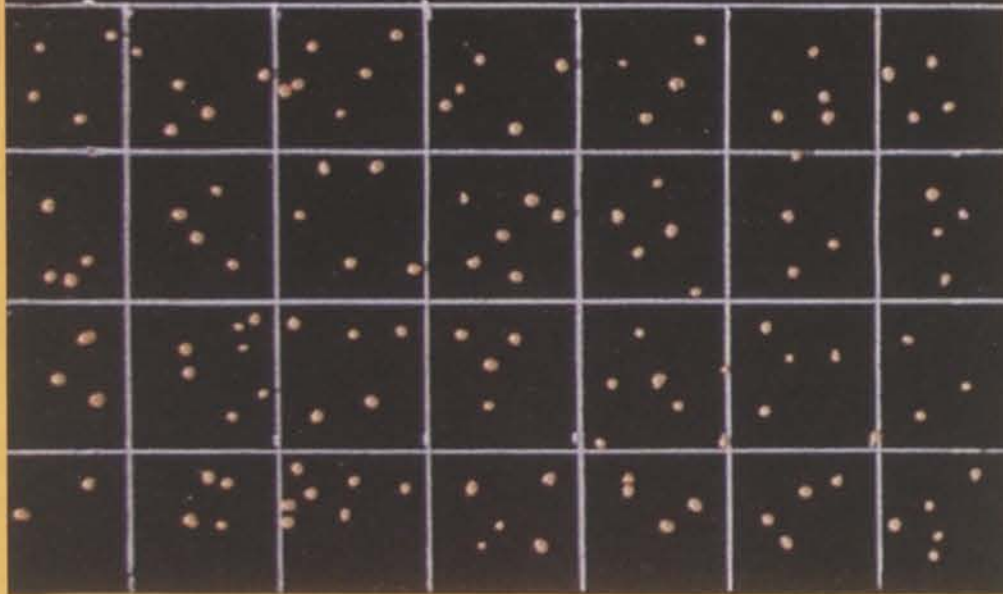
Kocher



Love

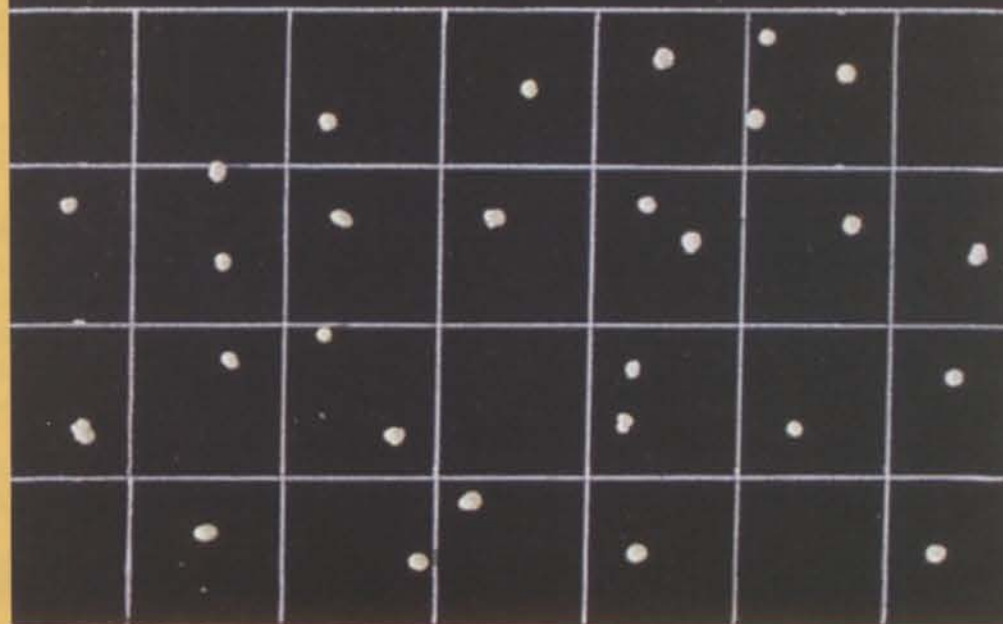


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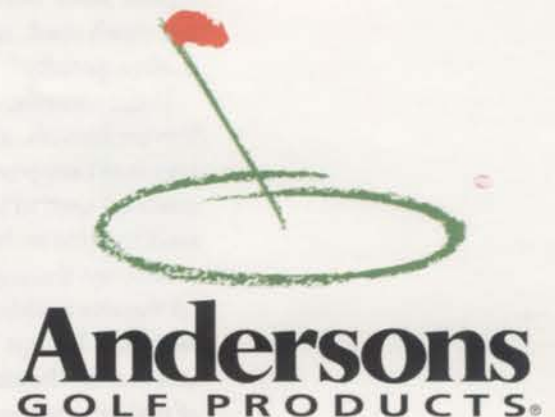
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## Changes in technology, ratings and mower stress

Design changes aren't the only evolutions superintendents will see on the course in the future. Wireless technology, course ratings and mower stress also will change, affecting the way courses are maintained.

People are looking to apply wireless technology on golf courses, according to Kurt Huseman, executive v.p. of the project development group for Landscapes Unlimited, a golf course building company based in Lincoln, Neb.

"Expect to see more people aligning technology with the game, such as Wi-Fi and technology that would be used to locate golf carts, keep track of maintenance and employees, and communicate with the pro shop," Huseman says.

Doug Winfield, a mechanical engineer who designs golf equipment, says a lot of courses aren't rated properly, and one day, course ratings should account for weather, such as high winds after a lot of rain.

"Better methods of course ratings are needed," Winfield says. "There are ways to fool the USGA course rating by putting out of bounds markers on a course in order for it to rate more difficult."

Stan Zontek, an agronomist and director of the Mid-Atlantic region for the USGA Green Section, says the conditions of golf course will get nothing but better, but there needs to be more of a focus on managing mower stress.

course, Huseman says.

"If land is cheap, you'll have wide fairways," he says. "If land is expensive, you'll have narrower fairways. And for safety reasons, fairways will have to be a certain width. We're also seeing a trend of more native areas in out of play areas."

Zontek says fairways are becoming narrower and the mowing heights on fairways are getting shorter.

"It was one inch in the 1970s, and now the better courses are down to 0.325 to 0.4 of an inch," he says. "We're topdressing fairways. I've heard of some courses that are hand mowing fairways. It was a joke at one time, but now people are doing it."

## Bunkers

Bunkers probably won't experience the kind of changes greens and fairways will, but there will still be a trend, according to Brauer.

"Bunkers still provide a more difficult challenge and still have their place," he says. "We're going through the same cycle that we did in the 1960s and 1970s to take out bunkers that don't see a lot of play for economic reasons. We need to justify bunkers. The trend will be fewer bunkers."

"You need some, but you don't need that many," Kocher adds. "Grassy hollows could replace some bunkers. Sometimes we have too much sand, and to a professional, sand is not a penalty."

Unfortunately, people don't think bunkers are hazards, according to Zontek. Bunkers aren't supposed to be consistent. Finer sands are used in fairway bunkers and softer sand are used in the bunkers near the greens.

Love says if a course doesn't have many natural features to define it, more bunkers could be added. He says architects can design bunkers that are drastic but they need to be aware of maintenance requirements for them.

Bunkers are tied to the cost of golf, Huseman says.

"We're seeing a lot of municipal clients who want affordable golf – \$4 to \$5 million for a facility – so the number of bunkers is fewer," he says. "The price point determines the number of bunkers."

## Tees

Tees are changing, too. Brauer says that because there are so many tees on a course, architects are staggering them left to right so golfers doesn't see the others when teeing off.

"Tees are using more and more land," he says. "Increases in land become difficult for walkers to get to the back tee and that reinforces the use of carts."

Love says he's a fan of a lot of diversity, as far as width and length, in teeing areas.

"It gives the golf course more excitement," he says. "Having four to six tees gives you flexibility. Most of the up-front tees are in one spot and flexibility is in the middle tees. Senior, women, professional and amateur tees provide a reasonable challenge for all levels of players."

One of the results of farther hit balls are multiple tees.

"I saw one course with seven tees – that's a bit much," Zontek says.

Also, tee boxes are becoming more of a feature, and they tend to be more isolated, Huseman says.

"[Golf course architect Tom] Fazio has been developing that technique," he says.

The industry will see a return to squared off tee boxes because it's a function of how they're built and maintained, according to Kocher.

## Other trends

There will be some other growing trends, but artificial turf isn't going to be one of them.

"Artificial turf won't take over," Brauer says. "Natural turf provides environmental benefits. There will be more drought-tolerant grass, too. We're not taking a step back to scruffier golf courses. I don't see switching back to lower quality playing conditions."

Kocher says artificial turf is costly. "People will be willing to look at it, but I would be surprised if it's a trend," he says. "Artificial turf doesn't have an infinite life. People like real growing grass."

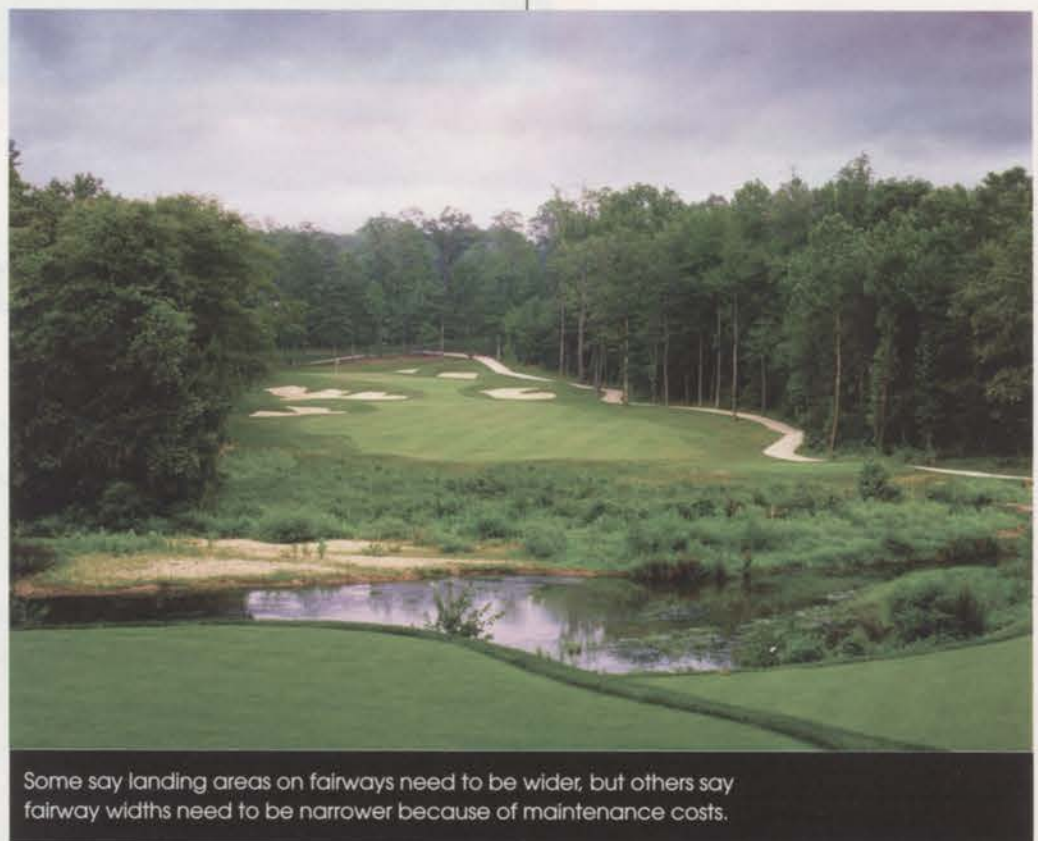
However, there is a golf course in development in Mancos, Colo., called Echo Basin Resort that will use artificial turf. Dan Bjorkman is the owner and developer.

Huseman also says there's growing trend to develop more drought-tolerant fairway grasses. Paspalum is a popular type of grass on fairways and greens in the Caribbean. It's also cheaper than Bermudagrass because it's seeded, not sprigged.

Overall, Huseman says golf course development won't decline any further, but it won't pick up quickly.

"A lot of renovations are keeping us busy," he says. "A lot of the renovation entails wiping the slate clean and starting over. New course development will hold steady as long as residential development can support it. If residential development declines, we would be directly impacted." GCN

*John Walsh is the editor of Golf Course News. He can be reached at [jwalsh@gie.net](mailto:jwalsh@gie.net).*



Some say landing areas on fairways need to be wider, but others say fairway widths need to be narrower because of maintenance costs.



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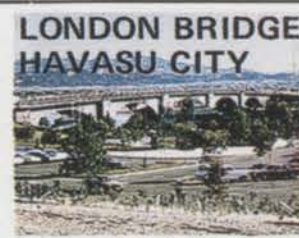
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# An encompassing ap



Bunkers flank the par-3 seventh hole at Dublin Ranch Golf Course in Dublin, Calif.



# Approach

## DUBLIN RANCH'S EXECUTIVE-STYLE COURSE AIMS TO BE ALL THINGS TO ALL GOLFERS

by  
DOUG  
SAUNDERS

**F**ifteen years ago, a Taiwanese real-estate developer searched the grasslands east of San Francisco looking for attractive investment property. Since then, the region around his piece of land in Dublin, Calif., has seen considerable growth. For R.S. Lin and his management team, DTT Management, the investment in agricultural land turned into a gold mine as the housing market continued to be in high demand and land prices rose.

Initially, Lin approached the transformation of the 1,500-acre parcel of land like many other developers have done with projects like this by creating a series of housing developments around a golf course. But the similarities end there. His course, Dublin Ranch Golf Course, is an effort to upgrade the concept of the executive-style course to address one of the reasons that some golfers leave the game: the time it takes to play it.

For Lin, who is an avid golfer, this also represented the chance to own a course. He envisioned keeping the golf course as a public facility that would serve the new housing communities and the expanding city of Dublin.

The site for Dublin Ranch rests on a rolling piece of land that required extensive earth moving to form suitable housing sites. The parcel left for golf course development was restrictive because of severe elevation changes.

Lin hired golf course architect Robert Trent Jones Jr. to devise a suitable course for the hilly site. The design team, which included golf course architect Don Knott, proposed an 18-hole par-63 course that featured two par-5s, five par-4s, and 11 par-3s.

"By the time the homesites were established, the area for the course lent itself best to a series of par-3 holes," Jones Jr. says. "We have created many of these executive-style courses throughout the country for decades, and they are especially effective in urban areas where land is at a premium. We were able to add two par-5s and five par-4s to give the course more variety."

The advantages that usually are gained by the executive-length course, including less maintenance and construction expenses, didn't figure into the decision-making process for the developers. The main concern was to have a complete design for the housing sites and the course, so the massive amount of earthwork involved could be accomplished as efficiently as possible.

"More than six million cubic yards of earth had to be moved to shave the hills and create the pads for the housing site," says Mike Vickers, who first was retained as a project manager for the construction of the

### AT A GLANCE:

#### Dublin Ranch Golf Course

Location:	Dublin, Calif.
Course type:	18-hole daily-fee facility
Cost:	\$6.2 million
Construction began:	March 2002
Course opened:	February 2004
Yardage:	3,412; 3,877; 4,350 and 4,820
Par:	63
Average green size:	8,000 square feet
Number of bunkers:	38
Fairways:	Bluegrass/ryegrass mix
Tees:	Ryegrass
Greens:	Bentgrass
Slope:	95, 104, 105 and 107
Rating:	59.3, 60.4, 61.9 and 63.4
Superintendent:	Mike Vickers
Developer:	DTT Management
Construction Co.:	Wadsworth Constuction
Architect:	Robert Trent Jones Jr.
Owner:	R.S. Lin

Photo: Freddy Bird





Photo: Freddy Bird

The greens at Dublin Ranch average 8,000 square feet. Pictured above is the fifth hole.

course and then was kept as the golf course superintendent. "Planning where to build up areas and where to store excess soil for later use was crucial in our initial planning."

### The right design

When Lin looked for a golf course architect

eight years ago, the golf market was strong; but by the time he began construction, golf suddenly was dealing with a decline of rounds and the challenge of golfers leaving the game. The plan Lin decided on suddenly looked like a timely decision on his part.

"As technology in golf equipment improves, designers are wondering how big should golf courses be?" Knott says. "At some point, as you build large courses for professional players, the courses become too difficult for the average player. At Dublin Ranch, we tried to design the course so that it would be in between a par-3 practice course and a championship course and would be an enjoyable golf course for all levels of players."

The course consists of two nine hole layouts that ring the edges of the site. Even though there are only 112 acres of maintained turf, the course is spread throughout almost 300 acres, which gives it a larger feel. Extensive earth moving helped to form inviting green sites that hang on the edge of hill sides and create pleasant views of the valley and Mount Diablo.

"We made a conscious effort to make each hole as individual as possible," Jones Jr. says. "We only put in 38 bunkers because the consistent prevailing wind provides adequate protection to the holes. The large landing areas also add to the inviting look of each golf hole."

Each hole features five tee boxes, which provide length and angle variety to the greens. The course plays 3,412 yards from the forward tees and 4,820 yards from the back tees. The par-3s provide a variety of lengths from 143 yards to 224 yards, and the two par-5s are 549 yards and 521 yards, respectively.

Also, the greens are large, averaging 8,000 square feet.

"That gives me a lot of pin placements," Vickers says. "The entire layout has the look and feel of a regulation golf course. Players that have come here are surprised at what they find."

Vickers came to Dublin Ranch after several years of working on the construction side of the golf course business. After graduating from Michigan State University's turf school in 1994, he joined Greenscape, a golf



Photo: Freddy Bird

The 18th hole at Dublin Ranch is one of the course's two par-5s.



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## design case study

construction firm that built the majority of Jones Jr.'s designs.

"I felt that it would be valuable to get some construction experience for my resume, but I enjoyed that facet of the business so much that I stayed in the construction end for 10 years, Vickers says. "Mr. Jones referred me to Mr.

Lin as he was looking for a project manager to oversee the work at Dublin Ranch. Wadsworth Construction did the work here while I looked for ways to keep costs under control."

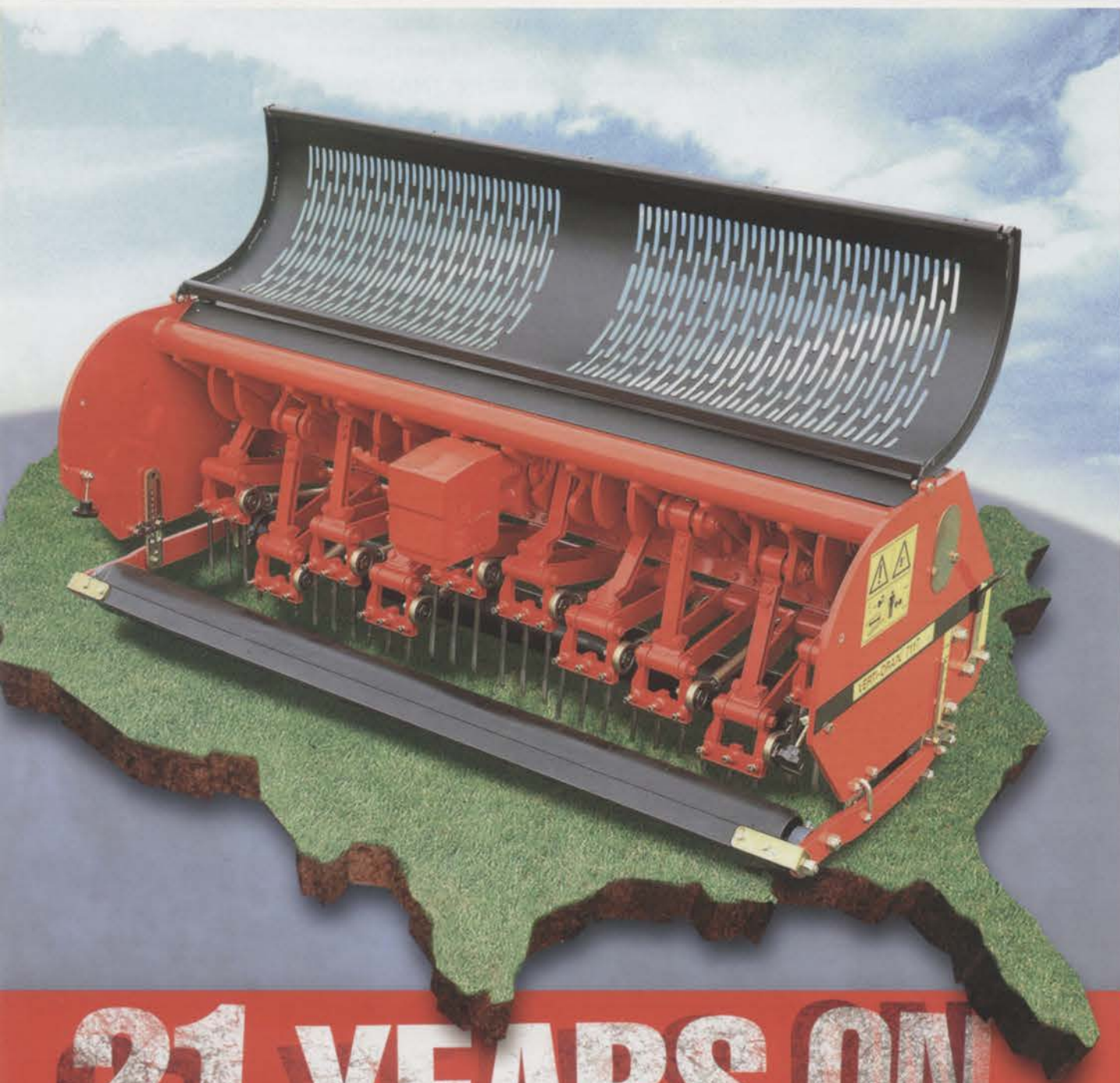
### Building it

Construction of the course finally began in



Mike Vickers, left, and Dan Tsai hope to generate 30,000 rounds this year.

Photo: Freddy Bird



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March 2002 and was shaped and planted by November of that year. In some areas of the course, 40 feet of fill was added, and both water tanks that service the course were surrounded with mounds of dirt to keep them out of sight.

"The city of Dublin continued to have major input in the construction and visual appearance of the course," Vickers says. "This is the first, and probably the last, golf project in the city, and they took a strong interest in how it would fit into the area."

At one point during the winter months, a Bald Eagle was found nesting in an oak tree three-fourths of a mile from the course. City officials, based on advice from California Fish & Game, asked that construction of the course and houses in the bird's view be halted until nesting was completed. The developers also built a roost for the eagle further up in the canyon so it would have a more secluded nesting area in future years.

Throughout construction, grow-in and completion, the one element that was never compromised was the desire to do things in a first-class manner. Lin, who lives in Taiwan and speaks no English, has taken great pride in the golf course he created. Daniel Tsai, general manager of Dublin Ranch, says Lin feels that the emphasis on presenting a well-maintained shorter golf course sets Dublin Ranch apart from the other courses in the area.

"We offer a first-class course that allows you to use every club in your bag and can be played in 3.5 hours," Tsai says. "We are also able to offer this course at a rate that is less than our competitors."

The course features a bluegrass/ryegrass mix on the fairways, straight ryegrass on tees and Dominant Plus bentgrass on the greens. Lin kept Vickers as the superintendent because of the trust that had been developed throughout the construction phase. Vickers had the luxury of allowing the course to grow in for 14 months before it opened to the public.

"Dublin Ranch is different from other executive courses because we spent almost as much in construction as a full-length course due to the massive earthwork," Vickers says. "Also, we are sparing no expense on maintenance because we know that we must present a high-quality product to get golfers to come and play a par-63 layout."



Completing other parts of the facility on time were important, as well.

"We wanted to finish all of the construction around the course, including the clubhouse, bathroom facilities, maintenance buildings and dirt work before we opened to the public in order to feature a complete package to our customers," Tsai says.

### Earning a reputation

As Tsai manages the course through its inaugural season, he sees it as a learning year. Management hopes to generate 30,000 rounds. But they must face the challenge of dealing with golfers' perceptions of Dublin Ranch.

"Most golfers call and find out that we are a par-63 course and are cautious," Tsai says. "They are afraid that we are a little course in a field or near a driving range. When players come here, they are surprised by what they find. It is our mission to find the proper way to bring people here to try us out in our first year."

Tsai has instituted 10-minute tee-time intervals so players don't stack up on holes. This is another way to guarantee an enjoyable golfing experience for players. He says that's important to attract serious golfers during his first year of operation.

"I want the regular golfers to discover us first in order to develop our reputation," he says. "While our course is attractive to many levels of golfers, I don't want us to be considered a beginner's course, a practice course or just a family course. Dublin Ranch's design allows us to be all of these things over time, but this first year is important to us to develop a strong reputation."

Business groups also are a target audience.

"This layout would be an excellent venue for corporate groups that usually include all levels of golfers, as even the occasional

player can get around without losing a ball," Knott says.

Lin's decision to build a par-63 course was driven by space restrictions, but he saw the value of providing a quality course that could be played in a short period of time. However, the immediate hurdle is to sell the concept of

a shorter course to the golfing public.

"We feel that as players find out about what we offer here, we will win over the repeat players," Tsai says. "Only time will tell." GCN

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



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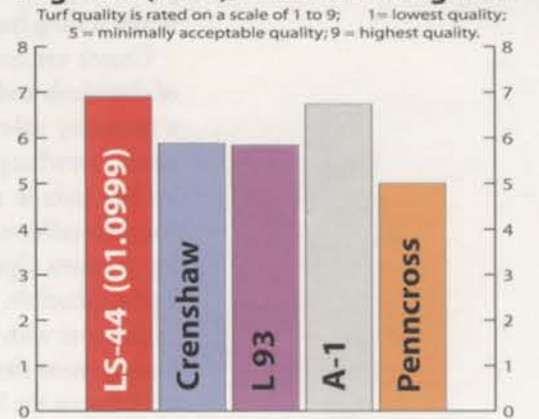
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The first hole at Dublin Ranch overlooks the city of Dublin.



# Building a bulletproof budget

TURN VULNERABLE LINE ITEMS INTO HARD-TO-CUT PROGRAMS

by  
DAVID  
WOLFF

All right, so no golf course maintenance budget is completely bullet proof, but trying a different approach can make it tougher to cut a budget and more likely to get what's needed.

Gary Grigg, a retired certified golf course superintendent living in Homosassa, Fla., has been educating superintendents about program-based budgeting for several years. Grigg is a 31-year member and past president of the Golf Course Superintendent's Association of America. Currently, he's vice president and agronomist with Grigg Brothers Corp., an Idaho-based fertilizer company. The method he developed makes it more difficult for boards of directors or owners to trim line items from the maintenance budget randomly. By simply cutting money, they're eliminating or drastically scaling back entire programs.

Greens are an example. Broad-based cuts of chemicals and manpower might seem like a necessary solution during tough financial times, but what goes unnoticed with arbitrary budget cuts is their significant impact on course conditions. Ultimately, when the quality of greens slips, the superintendent will be held responsible, even though he's being asked to do more with fewer resources. However, if management determines it wants the greens at 10 feet on the Stimpmeter, a program-based budget dictates what it will take to provide those conditions. Line-item reductions of chemicals or labor mean lowering expectations for course conditions.

## Set course standards

Most board members and owners are professional business people, and the superintendent must approach the budget in a business-like manner, according to Grigg. He suggests forming a small committee con-



Line-item reductions of chemicals or labor mean lowering expectations for course conditions.



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sisting of the superintendent, golf professional, green chairman, board president and a representative of the women's association.

"Walk the entire course with the committee and look at everything—greens, tees, bunkers, fairways, roughs, native areas, woods, even flower beds—and set standards for each area," Grigg says. "What green speed is desired, and what are the mowing heights and frequency of cut for each surface? Does the club want its bunkers tight and firm, or loose and fluffy? How many weeds or insects will they tolerate? The superintendent has to know what the club expects and, most importantly, get these standards in writing."

The key to a program-based budget is having agreed-upon standards and then relating them to the budget. Line items such as aerification, topdressing, brushing, mowing, fertilizing, fungicide applications and rolling become part of a program.

"If you are asked to reduce your chemical budget, then what part of the program do they want to eliminate and how will this reduce the standards?" Grigg says. "It's harder for your employers to argue with you if you have identified the facts. Outline every program and its associated costs. They must understand that cutting money means cutting programs."

### Other program elements

The executive summary should address three other elements. First, develop an organizational chart. This helps those who don't know the business understand how a maintenance staff is organized. It shows who reports to whom and who is responsible for each area. A staffing chart shows how many personnel are needed to carry out the programs in the plan. Employee salaries or hourly wages, bonuses and anticipated raises should be included. Everything should be included because the more information the better.

Second is capital equipment. A typical replacement budget should be 10 percent to 15 percent of the total annual investment in equipment. If new purchases are to replace equipment that should be rotated out because of old age, then maintenance records need to be shown to support the case. One should put together a 10-year acquisition plan on a spreadsheet. Once that plan is approved, with a few modifications each year, equipment is much easier to obtain and the process becomes automatic.

Third, most facilities budget for continuous improvements to the course. These projects should be part of a master plan with a complete cost analysis. The better the plan, the more likely these improvements will be approved by the board or owner.



Program-based budgeting can be applied to any level of operation, and there are course standards and realistic numbers associated with achieving them.

### Professional presentation

Grigg frequently talks to superintendents about program-based budgeting.

"At one point in my career, I worked for a management company that operated 16 golf courses," he says. "Each course was maintained at a different level. However, the same situation existed at each facility: The members wanted their course to be the best it could be."

Grigg says program-based budgeting can be applied to any level of operation, and there are course standards and realistic numbers associated with achieving them.

"Unfortunately, at many clubs, the board

says money is tight and starts hacking up the budget," he says. "If this method is used, the superintendent opens up the business plan and asks what standards can be adjusted. It's more difficult to amend programs than take out money."

Budgeting is also an education process. Boards and owners need to understand everything costs money, and if they take something out, something else has to suffer.

"Most people really don't know or understand our business," Grigg says. "If the managers or owners aren't happy and want the course to be better, the superintendent has



to be able to show them how much it costs to get what they want. If they can't afford those standards, they will have to buy into where the cuts will be made. Maybe they can't have champagne on a beer budget."

There can be other consequences for golf course superintendents.

"Too often, when a budget gets hacked up by randomly reducing line items, golf course conditions suffer, and the superintendent loses his job," Grigg says. "Club officials say they're going to hire a superintendent to take the club to next level, but this guy can only be as good as the amount of money he has to work with."

The more knowledgeable a superintendent is about the business side of a golf course, the better his chances are for success.

"The next time a superintendent is asked to take a percentage out of the budget, he should ask, 'From which program do we take it?' and 'Here is how that is going to affect course standards,'" Grigg says. "Management at the course will find it much more difficult to eliminate or change programs than it is to simply write a smaller figure on the budget document."

### Case in point

When certified golf course superintendent Lou Bettencourt arrived at Rolling Road Golf Club in Cantonsville, Md., in October of 2000, he faced a challenging situation. The annual maintenance budget had been set at \$528,000, and the membership was upset because the final number was \$578,000. On the other hand, the club fell behind its competition and wanted to improve course conditions.

This was Bettencourt's conundrum: how to raise quality, which takes money, with a board and membership frustrated by budget overruns.

Grigg visited Rolling Road and sat down with Bettencourt to find a solution.

"Gary told me I was approaching the problem the wrong way," Bettencourt says. "He told me I needed to provide more detailed information about the costs associated with the club's expectations. Sometimes superintendents can be their own worst enemy. They know what it takes to deliver different levels of quality, but they can't communicate this information to a board or membership that doesn't understand golf course management."

In June of 2001, Bettencourt did something unusual for Rolling Road. He began formulating his budget for the next year. The first step was a meeting with the green committee to determine expectations for course conditions. Next, Bettencourt developed a budget

that would deliver these results.

"I broke down every piece of the puzzle and created programs for greens, tees, fairways and roughs," he says. "I set the aerification and topdressing schedules, the amount of fungicide and herbicide we'd use, and how we would address insect problems. I pinned down every cost associated with each program, including labor."

When Bettencourt reconvened with the

Augusta National look. We make sure we manage their expectations according to their budget. It's unrealistic for some clubs to think they can walk-mow greens and tees and triplex fairways with three people."

IGM backs up its recommendations with time studies. Zakany says the greatest fluctuations in any maintenance budget are because of labor costs.

"Let's say it takes four hours to mow

**"If the managers or owners ... want the course to be better, the superintendent has to be able to show them how much it costs to get what they want." – GARY GRIGG**

committee in September, the budget was essentially set.

"The committee knew I wasn't just grabbing numbers out of the air," he says. "Each program had a breakdown of every associated cost. Once they agreed to the pieces, the total budget fell into place."

The maintenance budget totaled \$625,000 that year. This year it's \$978,000.

"One reason for the nearly doubling of the budget in the four years I've been here is that the club had fallen behind in terms of course conditions," Bettencourt says. "However, the biggest lesson for the board and the membership was that they couldn't have the conditions they wanted unless they were willing to pay for them. By following the plan for each program, I've never gone more than one percent over budget."

Superintendents must develop business and communication skills to help with budgeting.

"It's my job to communicate to the club and help the members understand what it takes to manage a golf course," Bettencourt says. "If they can't afford everything they want, they have the information about what programs they can cut. It's not my golf course, and the members will enjoy the course as much as they are willing to invest in it. Program budgeting has given me a lot of credibility."

### Maintenance alternative

Certified golf course superintendent Scott Zakany is the executive vice president of International Golf Maintenance in ChampionsGate, Fla. IGM provides contract maintenance services to 85 golf courses in 13 states. Facilities include municipal, private, daily fee and resort at all budget levels.

"We try to deliver realistic numbers for realistic expectations," Zakany says. "Some clubs have to realize they can't afford the

greens every day of the week," he says. "That's 28 man-hours. Fairways are mowed three days a week for eight hours a day, and that's 24 more hours. We go through every function on the golf course like this. Then we add up all the hours and divide the total by 2,080 (40 hours a week, 52 weeks a year). Next, we add the equipment technician and supervisory personnel. Now we can tell the club what the labor cost will be to maintain the course at the level they want."

IGM then looks at horticultural supplies. Material calculations are based on the number of irrigated acres and application frequency. This sets the cost of fertilizer and other products.

"I'll look at a particular golf course and see that it's disease prone," Zakany says. "I know that during the summer months I'm going to have to spray preventively with fungicides for three or four months on 21-day intervals. I know the acreage, and that tells me what the fungicide budget will be. We add the amounts for every product and put the results on paper. Now I can show management what it will cost to give them what they want. And sometimes they have to be careful what they ask for."

IGM's responsibility is to find the most cost-effective alternative.

"Our solution could cost the club less," Zakany says. "They may be spending \$100 an acre on a product when they could have done just as good a job with a different product that costs \$50 an acre. There can be huge variables in price depending on who you buy from. All of this just goes to show there are different ways to skin a cat, it just depends on who is doing the skinning." GCN

*David Wolff is a contributing editor based in Watertown, Wis. He can be reached at [dwolff@charter.net](mailto:dwolff@charter.net).*



# A better grass

PERENNIAL RYEGRASS VARIETIES RESISTANT TO GRAY LEAF SPOT PROVIDE SUPERINTENDENTS WITH MORE CHOICES FOR FAIRWAYS



The Palmer IV variety of perennial ryegrass that has high levels of resistance to gray leaf spot now is available on the market.

by  
PETER  
BLAIS

When Lakewood Country Club in Rockville, Md., reopens next spring following an almost-two-year renovation project, its tees and fairways will be sporting bentgrass rather than the perennial ryegrass the course had used for many years. The main reason for the turf change is the absence of a perennial rye variety that was resistant to gray leaf spot, a fungus that has wreaked havoc on many perennial rye courses for the past 15 years.

"Had it been available, we would probably still be a perennial ryegrass course," says

Chris Ayers, superintendent of the private, 18-hole transition-zone course located just outside Washington.

Fewer transition-zone courses are using perennial ryegrass these days because of gray leaf spot, which can quickly wipe out a stand of perennial ryegrass, according to Terry Buchen, president of Golf Agronomy International, a Williamsburg, Va.-based turfgrass consulting firm. But Ayers and fellow superintendents now might have the option of returning to one of their favorite grasses, thanks to the work

of Rutgers University researchers led by Drs. William Meyer and Stacy Bonos.

The Paragon GLR, Repell GLS and Palmer IV varieties of perennial ryegrass recently hit the market, according to Bonos, an assistant professor of turfgrass breeding at the New Jersey school, which has been developing the gray-leaf-spot-resistant varieties since 2000.

"The germplasm is a major step forward in bringing perennial ryegrass back into favor with golf courses," says fellow Rutgers professor Bruce Clarke.

## Root of the problem

Gray leaf spot is a strain of the same fungus that causes rice blast, one of the major agricultural diseases in the world, according to Clarke. On perennial ryegrass, it starts as small, oval leaf spots that are yellowish-brown on the margins with a tan center. When humidity is high, the leaf spots become felty with gray spores, which the wind can transport long distances.

"It is a major problem on golf courses because they overseed with perennial ryegrass and the seedlings are very susceptible," Clarke says. "It is about as quick as pythium blight in killing turf. It often starts in the roughs and will move via wind and rain into fairways, which become strongly affected as well, especially if they are overseeding, watering and fertilizing the new seedlings.

"The fungus likes high moisture and humidity," he adds. "The perfect temperatures are nights in the 60s and days in the mid- to upper-80s. You tend to see it from late July through October. The worst time is in August and September when courses are overseeding."

The fungus began attacking annual ryegrass in the 1970s, according to Bonos and Clarke. Dr. Peter Dernoeden, professor of turfgrass pathology and weed management at the University of Maryland, first noticed it on perennial ryegrass in 1985. Pennsylvania State University professor Peter Landschoot identified it as gray leaf spot in 1992. It soon spread throughout the country, with major epidemics occurring in 1992, 1995 and 1998. Primarily a problem

Photo: ProSeeds Marketing



at transition-zone courses east of the Mississippi, the fungus has been reported in Kansas and Nebraska and identified as far west as California. It also has been reported as far north as New Hampshire and as far south as Georgia.

ProSeeds Marketing is working with the Northern California Golf Association on a series of gray-leaf-spot-resistant perennial ryegrass trials in San Diego, Sacramento and Pebble Beach, according to Craig Edminster, ProSeeds marketing director.

"For the last six years, the focus has been on the mid-Atlantic region, however, you have gray leaf spot all over right now," Edminster says. "There is a lot of rice production in California, and *Pyricularia grisea*, the fungus of gray leaf spot, is a problem on rice, so there's a huge host in California. Two years ago no one ever imagined it would be a problem in California."

ProSeeds is marketing Palmer IV and will soon be introducing several additional gray-leaf-spot-resistant perennial ryegrasses.

Seed Research of Oregon technical agronomist Skip Lynch says Dernoeden once was asked how damaging a gray-leaf-spot outbreak could be.

"He called it the ebola of perennial rye, which speaks to the rapid destruction it can cause," Lynch says.

### Dealing with it

Not only does gray leaf spot spread easily, it can cause extensive turf loss and requires preventive measures. Ayers began seeing gray leaf spot problems on his course in 1995.

"We learned a little more about it every year," he says. "With different rates and different products, we tried to prevent it. We got better and were able to minimize the damage. But we felt like we were always going to be susceptible to it. Throughout the years, we took out the ryegrasses in our rough mix. It seemed like the gray leaf spot always started just outside the irrigated rough and crept its way into the shorter grasses. We started applying products to the rough to keep it from getting into the fairway. It was getting to be a pretty expensive proposition with no 100-percent guarantee that we could keep it down.

"When we made the decision two years ago to renovate the course, there was some slight mention that these [gray-leaf-spot-resistant perennial ryegrass varieties] might be coming down the road," he adds. "But there was no guarantee. With the time and effort we were putting into this renovation, and considering our location in the mid-Atlantic, switching to bentgrass seemed like the right thing to do."

Gray leaf spot also can require superintendents to use large amounts of fungicide

for control, which led Ayers and other superintendents to switch to bentgrass. Still, the decision to switch from perennial ryegrass was a tough one for Ayers and other superintendents in the transition zone who made similar decisions.

"There is no perfect grass," Buchen says. "One that does well in the summer won't do well in the winter and vice versa. Zoysiagrass, Bermudagrass, bentgrass, ryegrass or bluegrass are the choices in the transition zone. Perennial ryegrass does really well because it can handle the heat and humidity in the summer, but stays green all winter."

Other than gray leaf spot, perennial ryegrass has a lot in its favor, according to Ayers.

"Playability, quick germination and appearance were always positives," he says. "You didn't have to collect clippings on fairways when mowing, so it could be a labor-saving grass. Some of the *Poa annua*-control products allowed us to control *Poa* in the perennial ryegrass fairly easily. It was a durable grass and could withstand cart traffic. It was an all-around good grass for us."

### New developments

Despite all the positive aspects of perennial ryegrass, all commercial varieties of it were susceptible to gray leaf spot, which led re-



Photo: Turf Merchants

Paragon GLR is another variety of perennial ryegrass that has a high resistance to gray leaf spot.

searchers on their quest for resistant grasses.

"If you have a susceptible variety, it will take it right down to the ground," Bonos says. "It generally attacks seedlings from a week to four weeks old."

Rutgers researchers first noticed gray leaf spot at its research farm in 2000. They found a few germplasm sources that were



Photo: Rutgers University

New perennial ryegrass that has resistance to gray leaf spot is being grown and tested at Rutgers University.



resistant, selected them, increased their numbers and intercrossed them.

"The next year, we got another infestation of gray leaf spot and were able to see if the selections had improved resistance to gray leaf spot," Bonos says. "They did. Every year since then, we have been getting gray leaf spot and have been able to select for improvements every year."

The resistant selections contain a specific gene or set of genes that confer resistance.

"We are still unsure whether it is just one gene or a few genes," Bonos says. "But based on the classical genetic research we have done so far, the resistance does not seem to depend on a large number of genes."

The fact that resistance likely involves multiple genes is important as well.

"If the resistance is dependent on just one gene and then the fungus race changes, which is known to occur frequently in rice, the resistance will easily break down," Bonos says. "If it is dependent on more than one gene, the resistance should theoretically last longer. So far, we have not seen any breakdown in resistance or race change in the fungus. That is not to say that it won't happen. We are incorporating a large diversity of germplasm sources in our selected populations as a strategy to try to maintain a more stable resistance."

"If everything keeps going the way it has,

you can plant perennial ryegrass again," Bonos adds. "But you cannot predict what pathogens might do. If the fungal race suddenly changes, you are back to square one again. We are trying to prevent that from happening by selecting from a large germplasm base."

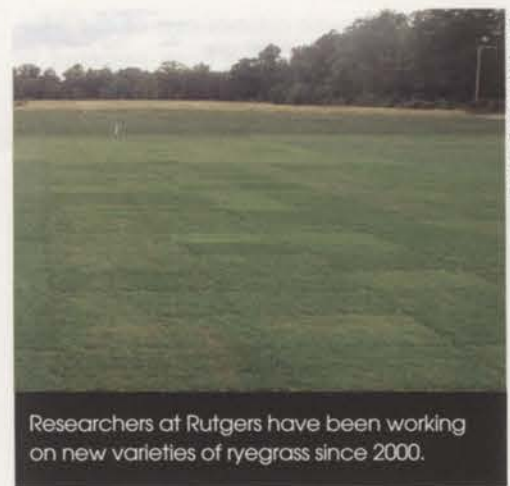
## A perennial return

With sufficient supplies of gray-leaf-spot-resistant perennial ryegrass becoming available thanks to research, Bonos and others expect the grass to become a favorite at transition-zone facilities again.

Turf Merchants is marketing Paragon GLR. And ProSeeds' Palmer IV is on the market and will be available in large commercial quantities in 2005, according to Edminster. Other ProSeeds gray-leaf-spot-resistant products coming to market soon include Panther GLS, Repell GLS, Prelude GLS and Palmer GLS (available in 2006-07).

"We apparently have the whole package with these varieties," Edminster says. "They still have great turf quality, yield high numbers of seeds, are all dark green and have multiple-pest resistance."

Lebanon Turf Products has three new perennial rye varieties with gray leaf spot resistance it plans to introduce during the next two to three years, according to turfgrass marketing manager Murray Wingate. Seed



Researchers at Rutgers have been working on new varieties of ryegrass since 2000.

Photo: Rutgers University

Research of Oregon has six varieties on or coming to market that were bred for gray leaf spot resistance, including SR4220, SR4550 and Peregrine.

"Those three varieties are also very salt tolerant," Lynch says. "You almost never plant perennial rye straight. It is usually part of a blend. A good blend can have gray leaf spot resistance, salt tolerance and attractive color."

Ayers says he will still use some ryegrass at Lakewood.

"In our area, it is the best first-cut of grass off the fairway," he says. "If the gray-leaf-spot-resistant ryegrasses come on the market, we'll use them in that area. The driving range tee, because of perennial rye's quick germination, could be switched to perennial rye down the road. The fairway on the range itself could also someday be perennial ryegrass."

"It has advantages," Ayers adds. "But, as anyone who has grown grass in the transition zone knows, there is no silver bullet among fairway grasses. Within 10 miles of my course, you can find ryegrass, zoysiagrass, Bermudagrass and bentgrass courses. There is no perfect grass. You go for the one with the fewest evils."

Additionally, the gray-leaf-spot-resistant varieties could cost slightly more than traditional perennial ryegrasses.

"The premiums won't be huge, but there will be some, particularly if it can be proven that these are resistant in the field," Edminster says. "Documented gray-leaf-spot resistance will probably pull a premium in the marketplace. If I was a superintendent with gray-leaf-spot problems, I wouldn't mind paying a penny to a nickel more per pound for a perennial with gray-leaf-spot-resistance compared with one that was susceptible." GCN

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Photo: ProSeeds Marketing

Perennial ryegrass with high resistance to gray leaf spot is being produced in fields, as workers spot spray the grass.



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\*source: USDA



## In tip-top shape

CONSISTENCY IS THE TRADEMARK OF A QUALITY MAINTENANCE PROGRAM

by  
DAVID  
WOLFF

**T**he equipment inventory at Blackhawk Country Club in Madison, Wis., is extensive, but a couple of items are certain to turn the heads of any superintendent or technician. There's a pair of Ford tractors that are more than 25 years old and a couple of Jacobsen Greens King triplex mowers nearing 14 years of age with between 5,000 and 10,000 hours of operation.

These pieces of equipment are still around not because Blackhawk is stingy with its budget or that superintendent Monroe Miller refuses to embrace new technology, but because these machines continue to perform because they've been maintained meticulously.

"We keep some pieces of equipment beyond what would be described as their normal useful life," says Miller, who has been Blackhawk's superintendent for 32 years. "I didn't trade the Greens Kings because they still have some useful life. We bored out the cylinders and installed oversized rings. And we bought a new engine for one mower because we felt the rest of the machine had enough value that we could justify the \$1,300 expense."

But the older equipment isn't expected to perform like its newer counterparts. Life is easier for these aging mowers because they aren't used in applications in which cutting units are lifted and dropped frequently. They mow par-3 fairways or make long runs on 420 yards of a par-5 fairway.

"We still mow fairways with a 1992 Toro Reelmaster 223-D, and it gives a beautiful cut," Miller says. "The cutting units on new mowers are almost exactly the same as the old ones. Of course, new machines are more comfortable and quiet, but all we're doing is mowing grass. Side by side, I can't tell the difference in the cut between the two mowers, and that's the truth. Old mowers suit me just fine if they perform. However, at some point, reliability becomes a factor, and they must be replaced."

But for any golf course maintenance staff, a quality equipment maintenance program will keep pieces working better and lasting longer.



Steve Jordan, equipment manager at Winged Foot Golf Club in Mamaroneck, N.Y., says there is no excuse not to check equipment daily and keep mowers sharp.

Photo: David Wolff



## Quality maintenance

The reason for the enviable performance of the older equipment is the quality of Blackhawk's maintenance program.

"Good maintenance is so simple – honestly," Miller says. "Our equipment manager, David Noltner, has been here 31 years. He comes to work before the rest of the staff and makes all the reel-to-bedknife adjustments. He checks fluid levels everyday and fuels each machine to make sure gas and diesel get in the right tanks. No one else is allowed to touch the equipment."

The basics of Blackhawk Country Club's maintenance program include the following.

**1. By the book.** Believe it or not, Noltner reads and rereads the owner's manuals for each machine.

"Everything is done by the book, and we don't stretch intervals," he says.

The shop uses only genuine original equipment manufacturer parts; and detailed, accurate records are a cornerstone of the maintenance program.

**2. Good work environment.** The shop is comfortable and well lit, and Noltner has all the high-quality tools he needs. A peek inside his toolbox reveals organization: Sockets in the socket drawer are arranged according to size, and wrenches in the wrench drawer are lined up from smallest to largest. There's also an adequate-sized lift and, most importantly, Noltner has the time to do the job right.

It's also significant to note that Noltner views himself as a professional and is respected by the club. On his 25th anniversary, he was invited to the board meeting, acknowledged for his dedicated service and given a generous gift.

**3. High-quality grinders are critical.** Blackhawk uses automatic reel and bedknife spin grinders. To sharpen the reel, the operator sets the reel on the grinder, makes the necessary adjustments, closes the door and turns on the machine. When grinding is complete, the machine shuts off itself.

"Guests come to Blackhawk because of our greens, so the reels on those mowers get the primary emphasis," Miller says. "Greens mowers are sharpened as required."

After mowing 10 greens, reels are backlapped. Then, at a point determined by the degree of sharpness, the reel goes back to the grinder.

"Only David makes reel adjustments, and he makes them every time a mower goes out," Miller says. "The adjustment may be slight, but the mower is always cutting at its peak efficiency. When David thinks a reel is a little tight, it gets backlapped. After that, they're put on the grinder, and with our equipment,

it's easy to do."

**4. Be tough on operators.** "If I see anyone abusing equipment, they won't run it anymore," Miller says. "I recently told someone that if I saw him driving a utility vehicle too fast again, he'd walk to cut cups."

**5. Keep it clean.** Blackhawk has a pressure washer and a large hot-water heater to use for cleaning equipment. The staff also uses high-grade automotive wax and large buffers, making every piece of equipment look like new.

"If an operator thinks a machine looks new, he treats it differently," Miller says. "If it looks bad, he beats it up."

The equipment is so well taken care of, people often think it's new. An equipment-dealer representative visited the shop this summer and noticed the Ford tractors.

"He said things must be good at Blackhawk because we've got new tractors," Miller says.

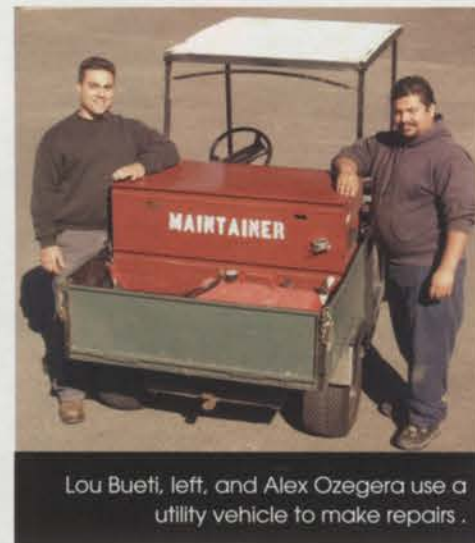
One of the club's best mechanics and operators, Omar Zaldivar, could have a career detailing cars, according to Miller.

"When our mowers come out in spring, we hate to get them dirty because they look so good," he says. "And one time, this actually worked to our disadvantage. A new green committee member made the comment that we're spending way too much money on equipment because we have so much new machinery. These stories may be amusing, but the simple fact is that properly maintained equipment works better and lasts longer."

**6. Productive off-season.** By Nov. 1, the five year-round members of the maintenance staff are pushing to get equipment ready for spring, and part of that preparation is visual inspections, which are thorough.

"We look at fittings, fasteners and other components that we can't see if we don't take off the sheet metal," Miller says.

**7. Talk to distributors.** Miller and Noltner



Lou Bueti, left, and Alex Ozegera use a utility vehicle to make repairs.



Omar Zaldivar, a mechanic at Blackhawk Country Club in Madison, Wis., helps make older equipment look new.

talk to distributors regularly and seek advice from their service departments.

"They tell us what we should be doing or give us a heads up about parts that may need to be replaced," Miller says.

**8. Budget correctly.** And Blackhawk doesn't fall behind on equipment acquisition either.

"We have the traditional five-year capital acquisition plan, but it has to be flexible," Miller says. "I might ask for two mowers and only get one, but I'll get the second one the next year. At Blackhawk, we offer golf. We don't have a swimming pool or tennis courts. We have excellent dining, and the golf better be good. One of the last areas we'd cut would be equipment maintenance. Our machines have to run at peak performance to deliver the course conditions that are required."

## Think like superintendents

Quality maintenance programs are improved even more when technicians understand – from a superintendent's point of view – what it takes to deliver top-quality course conditions. Steve Jordan, equipment manager at Winged Foot Golf Club in Mamaroneck, N.Y., is serious about his responsibility to know the daily and long-term course expectations of superintendent Eric Greytok.

"I see a lot of technicians who don't make the time to go out on the golf course and





Photo: David Wolff

David Noltner, equipment manager at Blackhawk Country Club, keeps a clean and organized work environment.

really look at it," Jordan says. "I sometimes consult for other courses, and walking one hole from the tee box to the green reveals a lot about the facility's maintenance program. If the tee box is shaggy, I know that tee and approach mower maintenance isn't a priority. If I walk up to a green surround and it's fuzzy-white and hazy and the grass is ripped, obviously rotary mowers aren't a priority either. The same is true for roughs. If the height of cut is uneven, those mowers don't receive a lot of attention. I'll even go up to the base of trees. If the grass is ripped, that course probably isn't using the right trimmer string."

Jordan also gets involved helping manage cultural practices. For example, Greytok wasn't satisfied with the results of greens aerification, and the two brainstormed about an equipment solution.

"Three years ago, we were using 3/8-inch quad tines, but Eric still wanted to eliminate more thatch," Jordan says. "We went into the shop, drilled out the blocks in the aerators and put in 1/2-inch tines. The affected surface area increased from 7 percent to 13 percent."

Lou Bueti, head technician at The Golf Club of Purchase (N.Y.), makes sure he an-

ticipates his superintendent's needs as well.

"Many things on a golf course happen repetitively," Bueti says. "For example, we all know the aeration schedule, so it's my job to make sure we have bedknives in stock and the tines and machines are ready. If it's rained for three days, I know we're going to raise mowing heights. I try to be a day ahead of what he's thinking, and that means I have to be knowledgeable about what it takes to maintain the course conditions we want. A superintendent shouldn't have to worry about whether or not the technician knows what to do."

### Identify equipment

Identifying equipment is another aspect of a quality maintenance program. A system that has worked well for Jordan and Bueti is marking equipment. Walk-behind greens mowers used on tees receive a different color-coded tag than walk-behind mowers used on greens. In some cases, mowers are marked for individual operators.

"To some operators, all mowers look the same, so it's important that we have a system where everyone knows where each piece of equipment is going," Bueti says. "And, if an operator is on a particular mower all the time, he's more likely to notice when something isn't performing right."

"If I go to a golf course and see a big hack on a tee box, I know someone grabbed a greens mower by mistake," Jordan adds. "This happens more frequently than superintendents would like to think, and tagging equipment is an easy way to solve the problem."

### Quality of cut

With all that goes into a quality maintenance program, the quality of cut, which is the end result, is the main driver behind any program, whether it's at Blackhawk, Winged Foot or The Golf Club at Purchase.

Jordan started repairing bikes when he was 14 years old and then moved on to cars. In 1995, he took a job on the maintenance staff at a golf course in the Pocono Mountains in upstate New York. When the mechanic there left, the superintendent told Jordan he worked well with his hands, and offered him the job.

"I learned immediately the impact a good technician can have on a golf course," Jordan says. "Within one season, we went from pretty good to awesome. There's no excuse not to check equipment daily and keep mowers sharp."

This philosophy applies to any course, regardless of the size of the maintenance budget, because reels, blades and bedknives must be sharp, according to Jordan.

"There's no set standard in the industry for how to do this, but if it doesn't cut, pull it out and grind it," he says. "If you don't have grinders, backlap. Just find a way to do it — no excuses."

When I came to Winged Foot, Paul Latshaw Sr. told me that we're in the business to mow, and that's where our priorities must be," he adds. "If we've got a good daily maintenance program, it will show on the golf course." GCN

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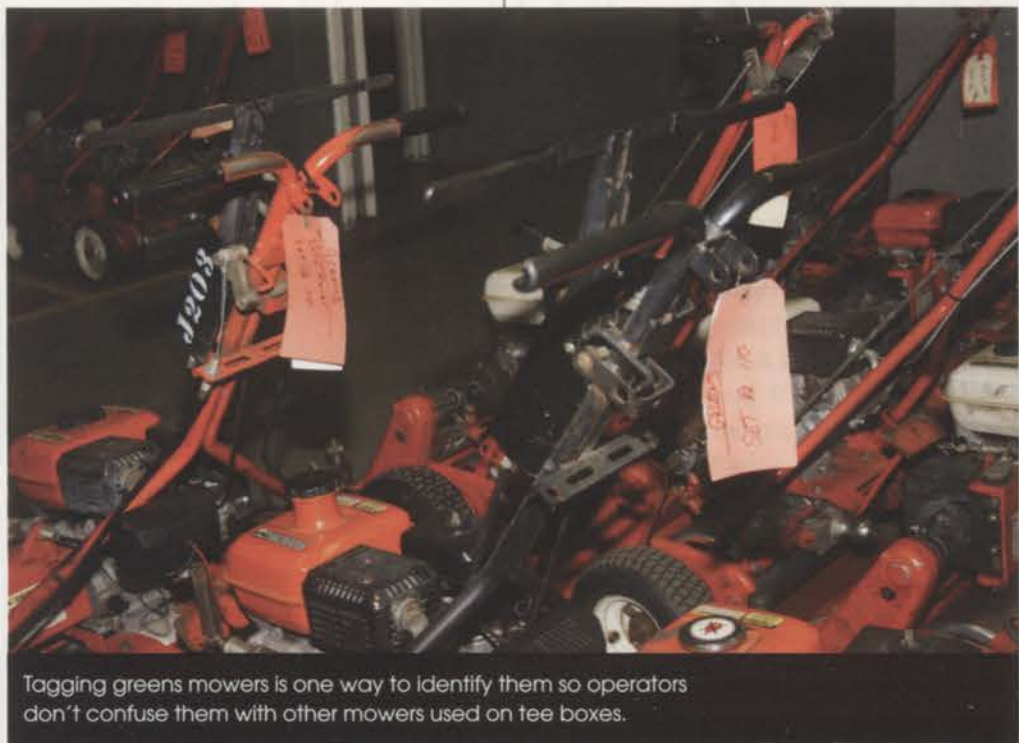


Photo: David Wolff

Tagging greens mowers is one way to identify them so operators don't confuse them with other mowers used on tee boxes.



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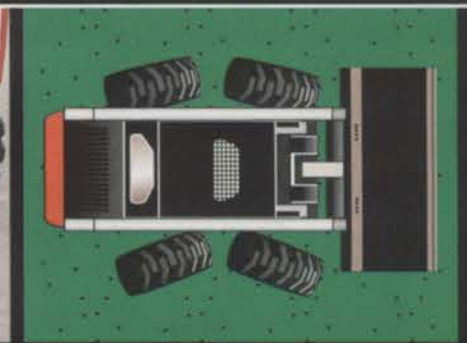
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# Put to the test

SUPERINTENDENTS FOCUS ON CLEANUP AFTER HURRICANES TEAR THROUGH FLORIDA

by  
DEREK  
RICE

**B**etween mid-August and late September, four hurricanes – Charley, Frances, Ivan and Jeanne – pummeled Florida one right after the other in a procession of high-speed winds and torrential rains. Worst of all, Jeanne hit land in almost the exact same place as Frances, further punishing Palm Beach County as it tried to recover.

By the end of September, Floridians were counting down the days until Nov. 30, the official end of hurricane season, and many snowbirds were contemplating a move back north or at least to somewhere other than Hurricane Alley.

Experts have estimated that this year's hurricane season will be the costliest on record, and news reports have surfaced about the difficulty some residents have had getting their insurance adjusters to arrive at their properties.

Because Florida is home to more golf courses than any other state, it should come as no surprise that this hurricane season created a number of problems – ranging from flooding to downed trees and worse – for the golf community, particularly those courses on the Atlantic coast that felt the

impact of the Frances-Jeanne double whammy. Sebastian Municipal Golf Course, Diamondback Golf Club in Haines City, The Breakers at Palm Beach and the Punta Gorda Country Club are a few of the many courses that dealt (and are probably still dealing) with damage and financial loss as a result of the hurricanes.

according to Greg Gardner, general manager at Sebastian Municipal Golf Course. “I’d say probably 90 percent of it was tree and debris cleanup,” Gardner says.

But aside from damage to the course, the rest – repairing damaged buildings, pump houses and irrigation systems – had to be put off for the time being, according to Gardner. Additionally, securing a contractor became almost impossible.

“The availability of contractors – with all the jobs that they have taken on – it’s just not going to happen overnight, unfortunately,” Gardner says. “We’ve got a lot of that to worry about.”

Among those worries were damage to on-course bathrooms, which were replaced temporarily with portables ones, the clubhouse restaurant and cart barn, and the near-complete destruction of Sebastian’s range netting system. Because the range is located between two holes and is only about 200-yards deep, there was a 50-foot-high net held up by poles all the way around it. The system survived Frances with minimal damage. Then came Jeanne.

“It was torn up a little bit after Frances, but Jeanne just took care of the rest of it,”

“The availability of contractors – with all the jobs they have taken on – it’s just not going to happen overnight, unfortunately. We’ve got a lot of that to worry about.” – GREG GARDNER

## A financial setback

For the most part, restoring a course to playability after the hurricanes involved moving trees and other debris off the course,

Gardner says. “We had about 85 percent of our poles broken, and they didn’t just fall down. The way the wood was broken and shattered, it just looked like a bomb went off from inside the pole. It just shattered.”

In all, Gardner estimated the damage total to be about \$250,000. Repairing the restaurant roof took precedence over everything else. And to make matters worse, the club’s fiscal year started Oct. 1, which means the storms not only caused physical damage at the course, but also wrecked two fiscal years, according to Gardner.

## A helping hand

Hurricane Charley took out an estimated 1,000 trees at Diamondback Golf Club. The hurricane also “renovated” the clubhouse by moving the back patio to the front parking lot and the front awning to the 16th hole behind the clubhouse. Because of the sheer number of trees, Diamondback general manager Jeff Parsons says there’s no way the course will be clear of trees any time soon.

“We will never, ever get to where we can clean up all the trees that were in our wetlands or in the outer perimeters,” Parsons says. “It would take a crew of 10 alone, plus equipment, to get in and haul that stuff out. We’re not a big club, so we’re doing it kind of piecemeal, and with our own guys at different points. From the standpoint of getting everything off the course and done, it’ll take us a good year.”

In all, Parsons estimated the cost to clean up and repair all the damage at Diamondback to be about \$250,000 in machine and labor costs.

Diamondback did get a helping hand from out of state. Randy Waldron, superintendent at the Golf Club of Georgia in Alpharetta, heard about golf courses sustaining hurricane damage in Florida and wanted to do something to help. So he contacted his old friend, ChampionsGate Country Club superintendent Bobby Ellis, to see what he could do to help. Ellis referred him to Parsons, and Waldron sent one of his assistants, Steve Sisson, and some equipment to Diamondback.

“Our guys just really wanted to do something,” Waldron says. “A lot of us [from the Country Club of Georgia] are from Florida, so I asked Bobby to find a mid-level course that maybe didn’t have a big budget that needed help.”

The club convinced a local supplier to donate a chain saw for Sisson to take with him, and the maintenance staff collected about \$300 to pass along to Diamondback’s maintenance staff.

Parsons says the good-will gesture was greatly appreciated.

“When Steve got here, he just pitched in and literally did whatever it took,” he says.





The Ocean Course at The Breakers in Palm Beach suffered a huge landscaping blow because many trees not only were blown over, but they snapped in multiple places.

Photo: The Breakers



"He cut trees down for us, he hauled trees, and he topdressed greens for us as we were moving forward. It was something that didn't need to be done. He didn't have to help us out like that, and he really did a great job for us."

## Breakdown

At The Breakers in Palm Beach, the one-two combination of hurricanes Frances and Jeanne caused a major disruption at the resort, which was completely closed for several weeks. The resort's Ocean Course was closed for 31 days, including several days spent preparing for the storms' arrival, according to Mark Reid, superintendent at The Breakers.

The Ocean Course suffered a huge landscaping blow because many trees not only were blown over, but they snapped in multiple places. The bunkers were severely washed out and contaminated with soil from the subgrade, and the course was un-

derwater for a period of time, and that was before the second storm hit.

"The Ocean Course opened after the second storm in as good, if not better shape than before the storms," Reid says. "The only thing different is the landscaping buffers, but we are working on the relandscaping."

The two hurricanes also caused a bit of a setback at The Breakers' West Course, which currently is in the late stages of a complete reconstruction designed by Rees Jones. But the damage could have been worse, Reid says.

A majority the trees that had been planted — about 300 — were blown over, but most of them were salvageable. But the biggest problem came from the turf. Prior to the first storm, the grassing was complete on everything but the practice facility, but the mix-out of all the greens that weren't established well blew off and left voids on many greens.

"We didn't lose any of the contours, and

we were able to re-establish those with heavy topdressing by hand," Reid says.

The bunkers, however, didn't fare so well. They were all washed out quite badly, and some of the faces collapsed. Flooding also was an issue on the course.

"It took a week after both the storms for the water to recede to its set elevation in all the lakes," Reid says. "The storms set us back on our opening a few weeks."

The new opening is scheduled for Dec. 17.

## A deal on hold

Considering all of the devastation, perhaps the saddest story of a hurricane-damaged golf course is that of the Donald Ross-designed Punta Gorda Country Club. Charley's winds damaged or downed about 900 trees, and almost all the structures at the club suffered some sort of damage, including a cinder-block half-way house. Superintendent Brad Wright suspects a tornado was responsible for the majority of the structural damage, although he can't confirm that.

As an added twist, last year, Punta Gorda's membership had entered into an agreement with Trimerica Mortgage Co. to sell the club in exchange for nearby Port Charlotte Golf Club. Punta Gorda members have been leasing Port Charlotte in anticipation of the deal's closing, which was slated for spring 2005.

Because Punta Gorda members have been operating two courses and have had their own losses to deal with, they decided to focus on repairing Port Charlotte, which reopened in September. They haven't decided whether to rebuild Punta Gorda or not, and there's no guarantee the Trimerica deal will still go through.

## Bouncing back

There's good news on the golf front though. Parsons says business at Diamondback is steady, and Gardner reported the same from Sebastian.

"A lot of people are dying to play golf, even though they've got a lot to do at home," Gardner says. "They're working a lot of extra hours, but they still want to try to get away and put it all out of their mind for a while."

And as a reminder of the capriciousness of Florida weather, even when there's no hurricane bearing down on the state, Sebastian's reopening after two weeks was delayed by a day, leaving Gardner to ask the question that has most likely been asked thousands of times throughout Florida since August: "Is Mother Nature mad at us?" GCN

*Derek Rice is a freelance writer from Portland, Maine, and can be reached at derekrice@maine.rr.com.*



Photo: The Breakers

The Ocean Course at The Breakers in Palm Beach was underwater for a while, and that was before the second hurricane hit.



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# Improving turfgrass

U.S. GOLF ASSOCIATION-FUNDED RESEARCH PROJECTS HELP ENHANCE TURF CONDITIONS ON GOLF COURSES

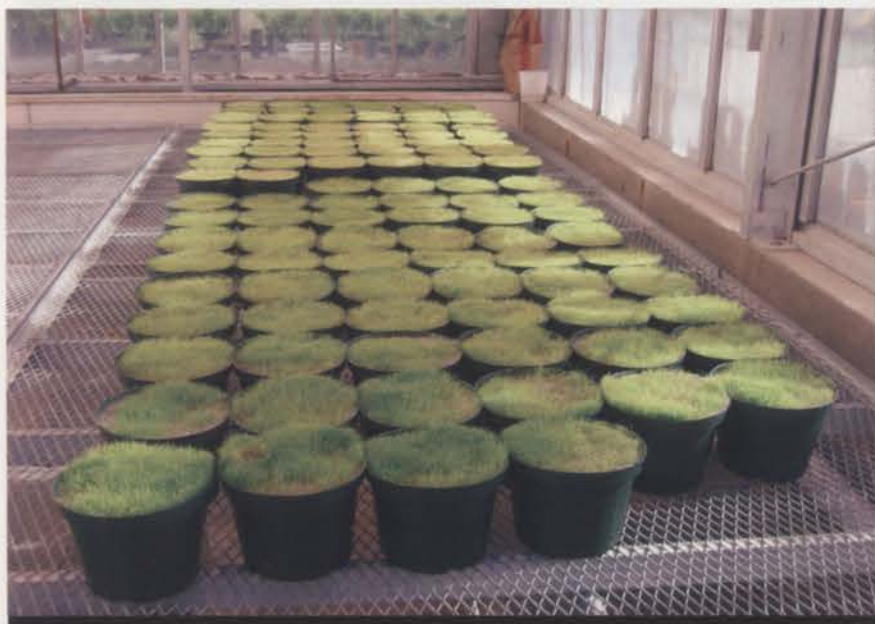


Photo: Kevin Ross

Much research takes place at universities throughout the country in greenhouse settings year round.

by  
KEVIN  
J. ROSS

There's no disputing that golf course conditions have change immensely throughout the past 25 years. Nowadays, golf courses are maintaining turfgrass at a level that wasn't possible years ago. Why is this? Certainly, one of the biggest reasons is the advancement of technologies used on golf courses. From mowers to irrigation to pesticides, the advancements have been considerable.

However, turfgrass research is one area that often isn't mentioned with all the advancements. With the current movement toward less pesticide and water use, to name a couple, turfgrass research will improve golf's future.

## USGA-backed research

One of the biggest supporters of turfgrass research is the U.S. Golf Association. Throughout the years, the USGA has given millions of dollars to support research con-

ducted throughout the country. Since 1983, the USGA has funded more than 290 university research projects at a cost of about \$25 million. The research findings of these projects have benefitted the game of golf and golf course superintendents throughout the world.

The USGA has helped develop research projects that, in turn, will reduce the amount of chemicals applied to turfgrass on golf courses without affecting the playing quality of it. From 2003 to 2005, the USGA is supporting 52 turfgrass and environmental projects. Even with the large amount of projects that are important to the industry, it seems like there are some favorites that dominate the talk among superintendents.

The development of new turfgrasses is one hot-button research topic for superintendents who continually are looking for better turfgrass varieties to improve performance. This is an area in which the USGA has concentrated funding for many years.

The National Turfgrass Evaluation Pro-

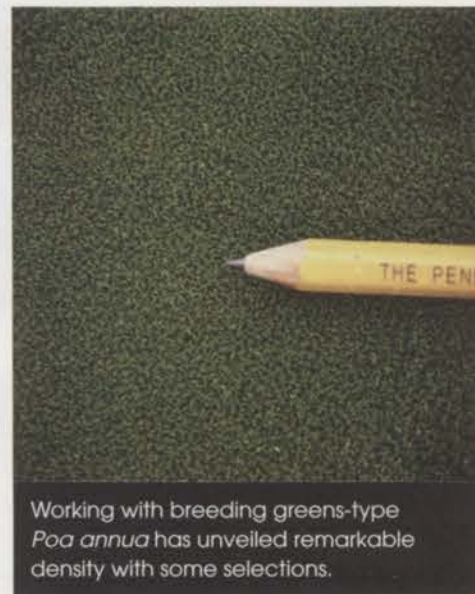


Photo: U.S. Golf Association

Working with breeding greens-type *Poa annua* has unveiled remarkable density with some selections.

gram is considered one of the most popular programs among golf course superintendents. The USGA has helped fund this program since 1997. The main purpose of the NTEP is to evaluate the commercially available cultivars and new market selections of various species. Basically, it's an independent and unbiased method of gathering performance data about various seed companies' cultivars.

With the flood of cultivars from many turfgrass species on the market, it's almost impossible for superintendents to evaluate them on their own. The program is a way to evaluate cultivars to determine what's best adapted for a particular region and if it meets superintendents' specific needs.

The USGA funding for the NTEP, along with funding from the Golf Course Superintendents Association of America, helped initiate a three-way cooperative effort for the "On-Site Testing of Bentgrass and Bermudagrass Cultivars for Golf Course Putting Greens" project, which ran from 1997 to 2001. Test greens were built in 16 locations throughout the United States for evaluation under playing and practice conditions. Trials were located in northern regions for bentgrass testing, in southern regions for Bermudagrass testing and in the transition zone to evaluate both grasses at one site.

Although the bentgrass and Bermudagrass research has been completed, the results are available still. This work was so popular that the program is tentatively scheduled to begin again. All past NTEP testing and present ongoing work is available on the NTEP's Web site, [www.ntep.org](http://www.ntep.org), where one can view data from all the trials.

## Disease resistance

Another example of turfgrass development is the breeding program at Rutgers Univer-



sity. Since 1983, the USGA has been funding the "Breeding and Evaluation of Kentucky Bluegrass, Tall Fescue, Perennial Ryegrass and Bentgrasses" study. The main focus of the research has been to improve the genetics of these turfgrasses by increasing stress tolerance and disease and insect resistance, which results in the reductions of pesticide and fertilizer use.

Unknown to many, in 1990, the USGA funded a grant to Rutgers University to study whether the glyphosate resistance gene being developed in agricultural crops also could be inserted into turfgrass. Hence, the birth of what the industry now knows as Roundup Ready bentgrass. The initial foresight for Roundup Ready bentgrass was to lower pesticide input.

If weed control could be established for creeping bentgrass, then only one pesticide regimen was needed. If bentgrass could dominate the stand with the use of glyphosate, then other grasses that have their own inherit problems, such as *Poa annua*, perennial ryegrass and Kentucky bluegrass, could be eliminated and less pesticides would be needed.

### Improving *Poa annua*

Quite possibly the breeding program that has developed the most discussion among superintendents and industry professionals, aside from Roundup Ready bentgrass, is the work being done by Dr. David Huff at Penn State University on "Cultivar Development and Extreme Temperature Tolerance of Greens-type *Poa Annua*."

For some people in golf course maintenance



Photo: Kevin Ross

Evaluation of turfgrasses is a hot-button topic for superintendents.

business, it's hard for them to believe the enemy could be a friend someday. Many contend, even in the current world of superior bentgrasses for greens, that when *Poa annua* is good, there might be no finer putting surface. But the inherent problem of *Poa annua* is that it's only good for a short time. The research for this project has evaluated tens of thousands of *Poa annua* plants, which have been taken

from golf greens from throughout the world. These selections have been looked at for heat and cold stress, disease resistance, shoot density, color and appearance.

Of the thousands of plants that have been selected for observation, Penn State has narrowed its work to a top 12, which currently are being evaluated at golf courses and university facilities throughout the world. Many of these selections have some of the finest texture and density ever evaluated for putting-green turf. Will superintendents be growing "greens-type *Poa annua*" on their greens some day? It will still take many years if that becomes the case, but this breeding program might make it possible.

### Reducing pesticides

One research grant, which has developed much interest, is the "Evaluation of Reduced Chemical Management Systems for Putting Green Turf," conducted by Jennifer Grant, Ph.D., and Frank Rossi, Ph.D., of Cornell University. This research was conducted at the public Bethpage State Park on the Green Course in Farmingdale, N.Y. The research was performed on push-up-style greens, which had accumulated a heavy, sand topdressing layer.

The focus of Grant's and Rossi's project was to evaluate integrated pest management techniques and reduce or eliminate chemical inputs to determine the feasibility to



Photo: U.S. Golf Association

Bentgrass- and Bermudagrass-greens testing was one of the most popular research studies among superintendents.





Dr. David Huff found diversity with *Poa annua*'s density during his research of the turfgrass.

Photo: U.S. Golf Association

manage acceptable golf greens under these management regimens. This project was the direct result of various public pressures to manage golf courses with few or even no pesticides. Extensive data from the project was collected from a three-year period ending in 2003.

To generalize their major findings, it has been determined that integrated management greens received less pesticides (27 per-

cent to 46 percent), and non-chemical greens were marginally or below acceptable quality during the stressful months of July and August and even needed emergency chemical treatments.

Possibly the best news from this project is the influence the research has had on various advocacy groups. Some state county groups have even reassessed their pesticide restrictions and written new policies that are now based on scientific research.



The turfgrass research conducted on push-up-style greens at Bethpage State Park in Farmingdale, N.Y., generated public interest.

Photo: U.S. Golf Association

### Ball-mark concerns

There also has been what can be termed research by demand. As the new creeping bentgrasses have hit the markets throughout the past 15 years, there suddenly was the major concern of a ball-marking problem with the new bentgrasses. Word traveled that the A and G series, L-93 and other varieties of bentgrasses healed slowly and ball marks would be a considerable problem if these bentgrasses were used.

The USGA decided to fund a research project, "Ball Marks on Bentgrass," to gather scientific based data on this problem. The study showed the new bentgrasses, such as A-4 and G-2, ranked as the top two bentgrasses in recovering from ball marks.

Thirteen bentgrasses and two velvet bentgrasses were studied.

The real ball-marking problem was determined to relate more to the maturity of the turfgrass and the development of a thatch and topdressing matrix layer rather than the cultivar. With the proliferation of new golf courses seeding these bentgrasses, this can explain some of the initial concern of the ball-mark healing problems. It's interesting to note this project proved a complete reversal of public thinking and perception of the issue.

### Organic accumulation

Another example of proactive funding by the USGA is the project conducted by Robert Carrow, Ph.D., from the University of Georgia. His work, titled "Surface Organic Matter in Bentgrass Greens," addressed the dynamics of thatch formation in relation to the performance of a USGA-specified green. Although this is a highly scientific study, the end results have provided a useful tool for superintendents to analyze greens performance and design cultural practices based on the data.

The research results indicated the potential breaking point for green performance being a 4-percent organic matter accumulation in the top two inches near the surface. Carrow noted that organic matter accumulation greater than 4 percent rapidly decreased green performance characteristics such as oxygen diffusion rates, saturated hydraulic conductivity and excessive surface water retention. He also stressed that the 4-percent organic matter be a guideline and not a rule.

With this research, maybe the focus now will be to analyze the organic-matter level in the upper two inches, instead of thinking about the surface percentage removed during cultivation.

### Extensive research

The material mentioned above represents a small fraction of the USGA's work. The USGA is dedicated to turfgrass research and to increasing awareness of the work being performed among industry professionals. Although some of the research might not pertain to a particular region, there's extensive work that can benefit the industry as a whole. For in-depth information about USGA research projects, both past and present, visit [www.usgatero.msu.edu/currentpastissues.htm](http://www.usgatero.msu.edu/currentpastissues.htm). GCN

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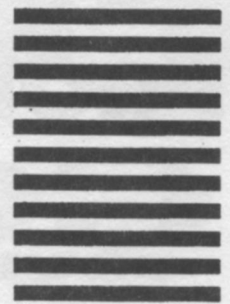
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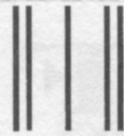
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## Physiological response of turfgrass to mowing

**M**ark Howieson is in the third year of his doctorate work, which is funded primarily by a grant from The Toro Co. The objective of his work is to study the physiological response of grasses to mowing. He's studying such physiological responses as carbohydrate metabolism and the activity of antioxidant enzymes. During 2004, his work has centered on creeping bentgrass and its response to treatments such as double cutting, mower sharpness and mower setting. His work is conducted in the field and in the greenhouse.

The wounding of grass by mowing and other physical damage results in highly active reactive oxygen molecules that can dam-

age the plants cells and affect the plants ability to form carbohydrates, lipids, and other plant chemicals required for proper growth and development. Plants have natural enzymatic systems to remove these reactive oxygen molecules and protect the plant from damage. Howieson's work is designed to study the protective response in creeping bentgrass.

Howieson also is conducting an extensive field trial at Cold Water Creek Golf Course in Ames, Iowa, about the physiological response of creeping bentgrass to mowing with equipment that has been sharpened with different types of reel sharpening equipment.

Howieson plans to complete his work by July of 2005.



Photo: Iowa State University

Mark Howieson's work has focused on creeping bentgrass' reaction to mowing.

### SOURCE

Nick Christians, university professor in the horticulture department at Iowa State University, provides updates on five of the major projects under his direction in which graduate students are involved. Each of these relate closely to golf course management and deal with current issues of importance to golf industry.

### MORE INFORMATION

More complete information about turfgrass research at ISU can be found at <http://turfgrass.hort.iastate.edu/>.

## Optical sensing identifies moisture, nutritional stress on greens, fairways



Jason Kruse uses optical sensing to identify moisture and stress in turfgrass.

**J**ason Kruse is in the final year of his doctorate work about remote sensing. This work also is being conducted with funding primarily from Toro.

The overall objective of the work is to use optical sensing techniques to identify moisture and nutritional stresses in grass before it's observed with the naked eye. The specific objectives are to: 1) evaluate various indices reported in the literature as tools for identifying moisture and nutrient stressed turf; 2) develop new indices to be used in detection of moisture and nutrient deficiencies; and 3) determine differences in spectral response of creeping bentgrass, Kentucky bluegrass and perennial ryegrass.

The remote sensing equipment used to collect the data was a field portable fiber-

optic spectrometer fitted with 30-degree, field-of-view optics. The tip of the fiber-optic cable is mounted inside a plastic hood that contains two 12-volt halogen lights. Kruse has collected extensive data during a two-year period about moisture stress from perennial ryegrass fairways at Veenker Memorial Golf Course in Ames, Iowa.

He also has data about creeping bentgrass that was treated with varying rates of nitrogen, phosphorus and potassium in separate studies. He's currently analyzing the data using indices that were previously reported in the literature and a new mathematical index that he's developing with help of the ISU departments of statistics and mathematics.

Kruse hopes to complete the work by December 2004.

## Cation ratios, soil testing for sand-based greens

**R**odney St. John is in the third year of his doctorate studies. He's studying the unique soil conditions that exist in sand-based media such as that found in many golf course greens. His work is supported by a grant from the U.S. Golf Association.

The specific objectives of his work are: 1) to evaluate and correlate several existing soil extraction methods with tissue analysis to determine which type of extractant is best for sand based turfgrass systems; 2) to modify, if necessary, existing extraction methods to

better suit turfgrass soil types; 3) to better understand how the basic cation saturation ratio theory and Ca/Mg/K ratios apply to turfgrass systems; and 4) to improve current recommendations for Ca/Mg/K fertilization of turfgrass.

St. John's work during 2004 has been the establishment of proper techniques for the modification of cation ratios in sand media. He's also concentrating on evaluating soil test extractants for use in sand-based systems.

His goal is to complete the work in 2005.



Photo: Iowa State University

Rodney St. John is studying unique soil conditions in sand-based greens.



## Methods of establishing Roundup Ready creeping bentgrass on greens, fairways

Luke Dant is in the second year of his master of science work. The objective of Dant's work is to study methods for the establishment of Roundup Ready creeping bentgrass on golf courses. The work is funded by grants from O.M. Scotts.

Roundup Ready creeping bentgrass contains a gene that provides the plants with tolerance to the non-selective herbicide Roundup (glyphosate). Roundup kills most weeds that infest creeping bentgrass turf, including *Poa annua*, a weed for which there are no other effective selective controls.

Dant has conducted a series of studies about the conversion of conventional creeping bentgrass greens and tees, bluegrass fairways, and perennial ryegrass fairways to Roundup Ready bentgrass. He also has conducted studies evaluating various types of equipment for the renovation of creeping bentgrass greens and on the timing and rate of seeding for conversion.

Dant will complete his work in the spring of 2004.



Luke Dant is studying the conversion of conventional creeping bentgrass to Roundup Ready bentgrass.

Photo: Iowa State University

## Removal of creeping bentgrass from Kentucky bluegrass roughs

Creeping bentgrass has become popular as a fairway species in the Midwest during recent years. The roughs on these

courses are generally Kentucky bluegrass. The contamination of the bluegrass roughs by the bentgrass from the fairways has

grown to become a common problem. There are few herbicides that can remove a cool-season grass from a cool-season grass selectively.

Marcus A. Jones is in the first year of his master of science program and is working on this problem.

The objectives of his works are: 1) to determine the best time of application that provides for selective post-emergence control of creeping bentgrass in Kentucky bluegrass; 2) to determine the rate of application for selective post-emergence control of creeping bentgrass in Kentucky bluegrass; and 3) observe any detrimental effects to the Kentucky bluegrass from the herbicide applications.

Presently, Jones is concentrating on mesotrione, a herbicide from Syngenta that appears to have significant activity on the creeping bentgrass without doing serious damage to the Kentucky bluegrass.

Jones will complete his work in December 2005. GCN



Marcus Jones is studying the contamination of bluegrass roughs by bentgrass from fairways.

Photo: Iowa State University





# THE GLOVES ARE OFF.

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

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

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- Fountain packages include one of eight different nozzle spray patterns, 100 feet of cord, a propeller guard, a control panel with a time clock and a three-year limited warranty
- Fountains are available in ½-hp to 5-hp models

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### Dual propeller fountain with lighting accent

- FD1000DP model
- 1-hp unit is available in 110 or 220 volt, 50/60 cycle
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- Each lighting accent comes assembled on a black float with four 20-watt clear lights, a built-in timer and four lenses in each color (blue, green amber and red)

*The Power House*  
 Circle 210 on reader service form



### Electric Workman e2050

- Based on the Workman mid-duty 1100/2100/2110 platform
- Regenerative braking provides efficient operation
- Fuel gauge displays current level of battery power; when the battery levels become significantly low, the unit limits top speed and acceleration, alerting the operator to find a charging location
- Includes several safety features, such as a plug detector that stops the unit from operating when plugged in for recharging
- Run-away-protection indicator applies brake and sounds off if unit rolls down hill without the operator depressing the accelerator
- Supervisor switch controls maximum speed employees can drive

*The Toro Co.*

Circle 211 on reader service form



### Gator TX Turf

- Four new models: Gator TS, Gator TX, Gator TX Turf and Gator TH 6x4
- More powerful than the previous Gators; improved braking capabilities, increased payload and enhanced operator comfort
- 13-hp/401-cc Kawasaki FJ400 engine
- All-wheel suspension and hydraulic disc brakes
- Decreased noise levels because of: an engine and exhaust system that's isolated from the frame and chassis, a large-volume muffler, and a ground speed governor and starter generator
- Ground speed governor also provides improved performance and the ability to operate at full speed with reduced engine rpm
- 44-inch-long cargo box with a 600-pound capacity and overall 1,000-pound payload/towing capacity

*John Deere*

Circle 212 on reader service form



### Antonio Carraro TigreCar 7700

- Short wheelbase; 4-wheel drive
- 64-hp turbo diesel engine
- Actio suspension
- Gearbox provides 16 speeds – eight forward and eight reverse
- Large turf tires keep ground compaction to a minimum even when fully loaded
- Optional items include a three-way dumping box with a 4,000-pound maximum payload, full cab and front power lift

*Redexim Charterhouse*

Circle 213 on reader service form



### Carryall 294 4x4

- IntelliTrak system delivers automatic 4x4
- Senses driving conditions and automatically engages and disengages 4-wheel drive without the driver having to stop and shift gears or lock differentials
- Available with a 20-hp, 614-cc Honda gas engine or a 20-hp, 719-cc Kubota diesel-powered engine
- No levers, buttons or switches for 4x4 engagement, front/rear differential lock or high-low range
- IntelliTrak eliminates steering feedback and reduces tire wear and turf damage
- Two bed-load capacity options for gas and diesel models

*Club Car*

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# Attracting kids with golf to better their education

**T**wenty years ago, Jay Miller was vacationing with his wife, Barbara, in Hawaii, and she told him to write down what he would do if he had all the money in the world.

"I said I would try and help as many kids as possible by hooking them on golf," Miller says. "I put my plan in my desk, and it ended up in there for 13 years."

Miller is co-founder, president and c.e.o. of the privately operated Get a Grip Foundation, which was founded in 2000.

Miller is a golf aficionado. He started playing the game at age five, worked at a golf course when he was 11, was a high school all-American and went to Purdue University on a golf scholarship. He then tried to play on the PGA Tour, but failed. Eventually, he opened his own business of promotions, sales, marketing and fund raising.

"I did well because of golf," he says. "Back then (during the early to mid-1980s), the martini lunch was still in vogue. A lot of golf was played. I played 92 rounds of entertainment golf a year."

Shortly after Miller's father died on his 40th birthday in 1999, he was playing golf with friend Bob Hoff, who asked Miller the same question his wife asked when they were in Hawaii. Miller told Hoff about his program, which he called "Tee It High." It was renamed Get a Grip because Tee It High was taken already.

Miller and Hoff raised \$2.5 million to start the foundation. Then Miller and his wife sold their small business; he became c.e.o. and ran the foundation. Hoff became the chairman.

"My job was to write a blueprint, find a location and raise the money," Miller says. "We raised several million dollars, but didn't have a course. It took me one year to find the course, and I almost gave up finding it. A real-estate guy showed me a course that I couldn't afford, but the owner of the course directed me toward one that fit what I was looking for. It was a crummy course, but I bought the

leasehold on it for 35 years.

"The first thing I did was move 300,000 yards of cubic dirt," he adds. "I hired Superior Golf, but I had no design plans. I sat on a bulldozer with a guy and told him to form fairways the way I wanted. I never had to touch one green. Ted Horton (a California-based consultant) helped me oversee with *Poa annua* and aerated the greens an awful lot.

"When we finish redesigning the course, we did 3,000 more rounds - 39,000 - than the year before. In 2002, we did 42,500 rounds, and in 2003, we did 45,500 rounds. This year, we're on track for 47,000 rounds."

Miller says the course has a slope rating of 123, has six easy holes, six fun holes and six holes tougher than Chinese arithmetic.

Miller and his wife have owned the daily-fee Cresta Verde Golf Club in Corona, Calif., since Feb. 11, 2002, and the Get a Grip Foundation started to operate there March 1, 2002.

"For the foundation to be categorized as non-profit, we had to raise eight times the gross revenue of the golf course," Miller says. "In 2003, the course grossed 1.7 million, so we needed to raise 13.6 million."

The foundation's beginning seemed grim because only eight children showed up when the doors opened. But things got better quickly.

"We got up to 42 kids in two

months," Miller says. "And then 156 kids enrolled after a newspaper article about the foundation. Now,



For every hour of golf they play, kids in the program are required to spend 20 minutes in the learning center.

there are 525 kids in the program, but that number fluctuates yearly."

There is no monetary cost for parents and kids to participate in the program. The kids, age 7 to 18, receive 70 minutes of PGA instructions a week, a range pass and all the balls they want.

"The kids get to play the course after 10:30 for \$1, and they get all the practice time they want," Miller says.

The foundation continues to grow. A practice center opens in late November this year and a tutoring center is expected to open in the spring of 2005.

"There is education every day, and kids do homework with certified teachers and accredited tutors," Millers says. "For every hour on the

golf course, the kids owe us 20 minutes in the learning center. Golf is our hook, education is our mission.

We're not trying to produce the likes of Tiger Woods."

Miller says his foundation, which has a mandatory life skills program and a voluntary bible study, helps kids stay out of trouble, which is what can happen when they get bored.

"The kids were on the golf course property 39,000 hours during 2003 - that's 39,000 hours off the street - and hit over 478,000 range balls. In 2004, we're

projecting them to be on the course property 47,000 hours."

There were 1,750 rounds played at Cresta Verde in 2003, and there's more than 2,000 projected this year. Equipment for the kids is donated by Roger Dunn Golf Shops. Titleist and Taylor Made also donate clubs.

The foundation, which has a budget of \$400,000 on which to operate, has four junior tournaments a year that cost the kids nothing. Miller sees the tournaments as building a base of loyal customers. A large part of the fund raising is The Esteban Toledo PGA Tour Pro-Am. Toledo is the ambassador for Get a Grip.

"We now have 150 parents that play golf because of their kids," he says. "That's \$20,000 in potential revenue a year."

Miller also says kids return as adults to play the course to give back what they've received from the foundation.

"I'm building my own base of loyal golfers instead of participating in the golf discount wars," he says.

Miller wants to grow the program to 1,000 kids by the end of next year.

The foundation can be summed up by the two tag lines it has: "Making golf and education accessible to all children" and "Bringing golf back to the people starting with an owner who cares." For more information, visit [www.getagripfoundation.org](http://www.getagripfoundation.org), GCN



With the help from Superior Golf, Jay Miller, founder of the Get a Grip Foundation, redesigned the Cresta Verde Golf Club.



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