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A look air superintendents who have ownership in golf courses

Cleve Cleveland, CGCS, Newark Valley Golf Club

IT'S THE SAME REASON SURGEONS USE SCALPELS. NOT BUTTER KNIVES.

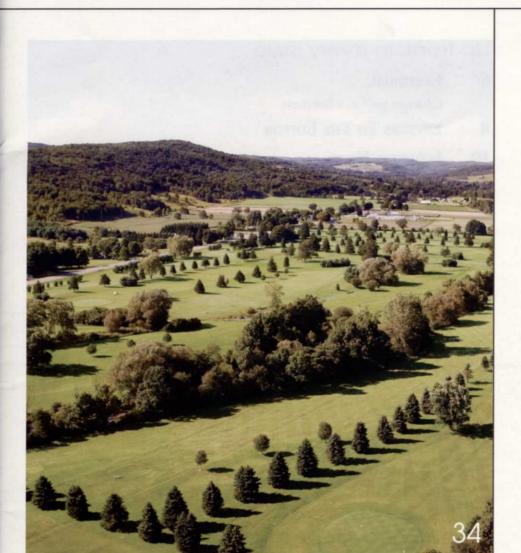
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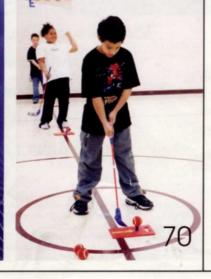
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The Golf Course Superintendents Association of America is reinventing itself to serve its membership and to adapt to the new reality in the golf course business. Golf Course News interviews Steve Mona, chief executive officer of the GCSAA.

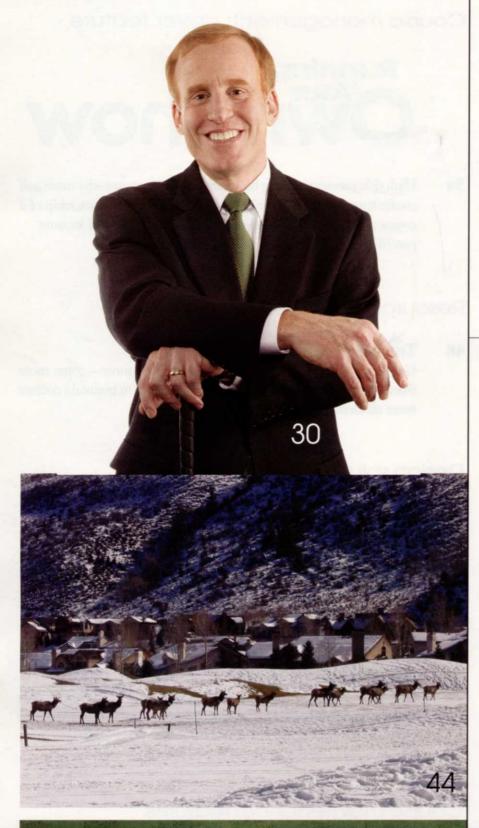
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SETTING THE STAGE FOR THE FOLLOWING SEASON

In the Northern regions of the country, winter preparation for golf course superintendents means a heavy work load during a short period of time. GCN shares how some superintendents prepare for winter activities on their courses.

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Aerification is a necessary evil of turfgrass management, but superintendents have to balance healthy turfgrass and player disruption despite golfer concerns.





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Roger Stanley Editor-in-Chief / Associate Publisher

Change: golf as a business

he sign on the wall had a pie chart with three sections. The first section was labeled "fast;" the second section was labeled "cheap;" and the third section was labeled "good." Below the pie chart, it read, "Pick any two."

The sign hung on the wall behind the service counter of a print shop in the 1980s, and the trade-off options it presented to customers fit almost any business then. At the time, I considered the sign to be clever. Now, the sign comes to mind because it shows how much business has changed. Updated for 2004, the pie chart would need a fourth slice labeled "What else have you done for me lately?" and the question below the chart would read, "Pick all four ... or add more if you like."

Golf has become a business. But what does that mean? And more importantly, what does it mean for golf course superintendents?

Often, the answer is uncomfortable change. Change in the way you think about yourself, your job and the results you're expected to produce. If it's true golf is a business, then superintendents have to be business savvy. It can help to see that what you're experiencing is happening elsewhere.

One change in business is that the "back of the shop" of many businesses has become part of the "front of the shop." Using printers as an example, there was a time when you would take your print order to the front desk, give the receptionist the materials and instructions, leave, let the printers in the back perform their magic, then pick up your order at the front desk a few days later when it was completed.

Today, the barrier between the reception desk and the printing presses are minimal or nonexistent. You're likely to talk to the printer when you arrive. If possible, the job will be printed right then or completed soon and delivered. The increase of service is driven by increased competition by 24-hour quick-print stores and do-it-yourself desktop systems.

Even car mechanics at many service shops now have to let you watch while they work, come talk to you to let you know how things are going – as though they were a doctor performing a delicate operation on a family member – and hand you a box with the defective parts when the job is done. In the good old days, the sign at car

repair shops said, "Service: \$35 per hour; \$50 if you watch; \$100 if you help."

So, is it any wonder golfers, committee members and just about anyone else now wants to help you with advice about overseeding, greens management, aeration, tree trimming and bunker design? These folks have been trained in the real world to get as involved as much and as often as they like. The customer today is all over the place, telling you what to do, when and how

Driving this new reality is increased competition for players, revenue and jobs. That competition isn't going to change any time soon, so what does it mean for golf course superintendents? Let me suggest five aspects of change to consider in light of your job:

Customers. The customer is always right. It's good to realize the customer pays the bills, so you should make every effort to find out what his expectations are and meet them. It's better to help set those expectations through communication and education and then exceed them.

Communication. It's good to take the time to talk *to* golfers, management, employees and suppliers. It's far better to talk *with* them. By definition, communication involves both our mouths and ears. It's virtually impossible to overcommunicate.

Teamwork. It has become a cliché, but more is usually achieved by working together. It's even better to take the time to see how your department affects and is affected by every other department. Gaining an understanding of the big picture and the resulting goals makes it possible to align your department's contributions.

New technology. It's good to stay on top of new technology. It's better to be one of the guinea pigs. Technology often fails to deliver its promises. However, anything that saves you time, saves labor, prevents mistakes or helps you be a better manager is a huge business advantage.

Education. It's necessary to stay current on the skills you need to do your job and to network with other superintendents. It's better to learn aspects outside your specific responsibilities, such as accounting or personnel management. You can never know too much given the rate of change and ongoing trend to give employees broader responsibilities. GCN



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letters to the editor

Planning ahead

I compliment Roger Stanley on his article about career planning ("Your next job" on page 34 of the April issue). It was accurate and inspiring. I've been a superintendent for 30 years in the Chicago area and now in New Jersey. Bruce Williams (certified golf course superintendent at the Los Angeles Country Club) is a good friend of mine, and I have been teaching Golf Course Superintendents Association of America seminars about various management topics with him for more than 20 years. Williams refers to his conversations with Jim McLoughlin (former executive director of the GCSAA) about topics such as career planning and management issues from time to time during our seminars, and we find McLoughlin's expertise most useful.

ROGER A. STEWART JR.
Certified golf course superintendent
Tournament Players Club at Jasna
Polana
Princeton, N.J.

Instruction needed

I read Jim McLoughlin's piece, "Why they quit the game," on page 30 in the June issue, and I couldn't agree with him more. I'm amazed at how unplayable and penal many new courses are and wonder if the designers are on the same planet as the rest of us. Beyond design, he hits it on the head with instruction. This is a difficult game that desperately needs people who can teach the game to beginners at an affordable price. The instruction should include a heavy dose of the history of the game and the etiquette that's needed for everyone on the course to have an enjoyable experience. I don't know who will lead the renaissance, but his thoughts are a good start.

CHIP POWELL
President
Powell Golf Design Co.
Bradenton, Fla.

Where the fault lies

I agree instruction in the golf industry is lacking (Jim McLoughlin's column, "Why they quit the game," on page 30 in the June issue). That fault lies with the Professional Golfers Association of America, (PGA), which is improving teaching through its educational evolution. Even the best instructions can't account for practice time and continuing education.

Even with the best instructions, there will continue to be different levels of play in the golf industry and different levels of instruction being given by PGA professionals. A golfer's best bet would be to seek the

help of a PGA professional that specializes in instruction. There are a few other minor details that would have to be taken care of, too. One would have to convince every golf club manufacturer to stop making clubs from a model and start making clubs that are custom fit to the individual. This is where most of the problem lies when learning the game. Even with instructions, the best electronic evaluation equipment and videos, nobody will ever reach his potential or desired level of play, playing with equipment that isn't designed to fit their swing model.

McLoughlin should to stick to giving advice in his field of expertise, or at least research the subject matter of which he's giving an opinion before faulting the people that are working hard to help each golfer play a better game.

JERRY C. MORRISON PGA Professional Ponta Creek Golf Course Meridian, Miss.

Editor's note: McLoughlin's response follows.

Thank you for your sincere comments, but I believe you're misinterpreting my comments. For example:

- I wasn't faulting or discrediting the people who teach golf, rather the system. You seem to agree with this premise when you admit instruction in the golf industry is lacking and blame the PGA.
- I'm not saying there are no good teachers of golf, just too few, and these too few generally migrate to teaching the better players, leaving the masses generally without solid teaching. For example, more than 30,000 less-than-fully-qualified golf instructors throughout the country are left teaching many millions of golfers needing quality instruction. This doesn't work, and golf suffers accordingly.
- Judging the quality of golf professionals and their teaching capabilities is a key element within my profession. My opinions are based on having interviewed about 200 professionals and assistants and witnessed a similar number of golf lessons and clinics through the years always looking to find more effective ways to engage golf professionals for my clients.
- While custom fitting can help fine tune a player's game, it isn't essential to establishing a basic swing through solid golf instruction.

It seems we're saying the same thing basically from two different perspectives.

JIM MCLOUGHLIN



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Industry News

Golf 20/20 releases annual report

Ponte Vedra Beach, Fla. – Golf 20/20, the World Golf Foundation's initiative focused on the growth of the game, published its annual Industry Report. It's available at www.golf2020.com.

The report looks at the state of the game at the end of 2003 by gathering information about facility development, rounds played, interest and participation. The information comes from a variety of sources. The report's objective is to look at the information to determine areas of opportunity and concern.

Highlights from the report include:

- Interest in golf remains strong.
- The decrease of rounds played from 2002 to 2003 was 1.5 percent, half the decrease from 2001 to 2002.
- There were 37.9 million participants during 2003, and 27.4 million golfers, both all-time highs.
- The pace of golf course development has slowed in reaction to the marketplace. Fewer golf courses are being planned and opened than at any time during the past 16 years.
- All three golfer segments occasional (one to seven rounds annually), core (eight to 24 rounds) and avid (25 or more) increased during 2003, but core and avid totals remain short of all-time highs.
- Research and trends indicate women represent the most significant opportunity for future growth, and that golf must focus on reaching ethnic minorities.

The report confirms the industry's need to focus on frequency. There are more participants and golfers than at any time during the past, yet throughout the past three years, there has been a decline of rounds played.

ARS, Turf group sign research pact

Washington – The Agricultural Research Service and the National Turfgrass Federation agreed to launch a long-term research program to improve the nation's turfgrass. ARS is the chief scientific research agency of the U.S. Department of Agriculture.

New research will be conducted as part of a national turfgrass initiative, a cooperative effort between the turfgrass industry, universities and ARS.

"This is the first attempt to provide the type of long-term research that has been key to the success of all other major crops," says ARS acting administrator Edward B. Knipling.

Turfgrass is a major agricultural crop that covers 50 million acres nationally and supports a \$40-billion-a-year business.

Turfgrass is the only crop industry that increases with urban development, Knipling says.

The NTF also works with university researchers to evaluate turfgrass in 40 states, according to Kevin Morris, with the NTF in Beltsville, Md. The new initiative will support research in six priority areas identified by the industry as their top research needs: improvement of water management, germplasm collection and enhancement, pest management, improving turfgrass' role in the environment, soil enhancement and integrated turf management systems.

Morris says the NTF is going through Congress to try to get money put in the federal budget for turfgrass research.

"The biggest problem is universities don't have the funding to do long-term research," he says. "The federal government is supposed to do it. It does it for every other crop. It's hard for the private sector to do the research because they need to realize a profit.

"We're not food or fiber, but we're important. We're getting hit with environmental concerns that we need to address and make real progress with."

Short-term effects of research would be management oriented, such as water strategies, Morris says. Long-term effects would be product development that could take 15 to 20 years.

Golf heading generates 52 million look-ups

Berkeley Heights, N.J. – The "public golf courses" heading generates more than 52 million look-ups per year, ranking 47th out of more than 4,000 "Yellow Pages" headings, according to the Yellow Pages Integrated Media Association.

Public golf courses account for 73 percent of about 16,000 golf courses in the United States, and Americans spend more than \$24 billion on golf supplies and playing fees annually, according to the National Golf Foundation.

In addition to listings and ads, many

"Yellow Pages" publishers offer special golf guides within their directories, which include local golf course listings, hours, maps and details about particular golf courses. This makes it easy for golfers to find their favorite links.

"Golf course owners and managers have an opportunity to attract these ready-to-golf consumers through the 'Yellow Pages,'" says Larry Small, director of research for YPIMA.

Volunteers fix driving range

Fayetteville, N.C. – Volunteer efforts in the golf industry allowed students in Methodist College's Professional Golf Management program to enjoy a renovated driving range.

The project coordinator was Steve Dorer, who until last year was the certified golf course superintendent responsible for the college's 18-hole golf course. Dorer is now with Revels Tractor Co. In concert with golf program director Jerry Hogge, Dorer and Brian Whitcomb, secretary of the PGA of America, the partnership created an example of what can be achieved when the golf industry work together.

Whitcomb, who also is a designer, provided shapers for the project at no charge.

The new range features bookend hitting areas, target greens and aesthetically pleasing undulations. The winding fairway is made of 419 Bermudagrass. An upgraded irrigation system will help ensure optimal performance.

The project also included installation of a practice fairway bunker, a greenside bunker and a chipping area. Three new practice putting greens were built providing 21,000 square feet of putting surface. All are grassed with tifdwarf Bermudagrass.

Association News

Best practices for water users released

Folls Church, Vo. – The Irrigation Association mailed summaries of "Turf and Landscape Irrigation Best Management Practices," a document to help water purveyors, irrigation professionals and property owners manage water effectively.



What do you think of the new Golf Course News?

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"It will allow water purveyors to better understand the specific elements of an efficient irrigation system - not just the hardware but the need for good installation, the need for a good design, maintenance and management," says John Ossa, chairman of the IA Water Management Committee, which spent four years developing the practices. "It should broaden an understanding of what all goes into water management in the landscape. It should help all the different constituents - whether they're water purveyors, property owners or contractors - better understand their part and how to interact effectively."

Adoption of the practices could reduce peak seasonal demand for water, making a huge impact on water systems and potentially mitigating the need for expensive upgrades to water supply infrastructure.

The 50-page document outlines irrigation best practices and detailed practice guidelines for the overall quality of an irrigation system, as well as design, installation, maintenance and management.

Relocation study terminated by GCSAA board

Lawrence, Kan. - The Golf Course Superintendents Association of America board of directors accepted the recommendations of a member resource group that ends the study to determine where the association's headquarters should be located. The board approved three recommendations presented to it by the headquarters location resource group. Those include:

- · Don't proceed to phase two of the headquarters location study.
- Use the GCSAA's strategic indicators to evaluate the impact headquarters location has on the association achieving its mission, vision and goals.
- · Encourage the GCSAA board of directors to explore the possibility of establishing offices in the eastern and western regions of the country to enhance the delivery and implementation of member- and chapter-related programs and services and to provide additional visibility for GCSAA and its members.

"We asked the resource group to determine if headquarters location has a material impact on the ability of the association to achieve its stated mission, vision and long-term strategic goals," says Mark Woodward, GCSAA president. "The re-

source group told us that question could best be answered in the next three to five years by evaluating the strategic indicators relative to the impact location has on achieving those targets. After that time period, the association's leadership will have a better measure as to whether location significantly affects organizational performance."

Golf Course News. GCBAA launch awards program

Cleveland - Golf Course News and the Golf Course Builders Association of America launched an awards program that recognizes excellence in golf course construction. The Golf Course News Builder Excellence Awards will honor members of the GCBAA for their contribution in three construction award categories: the Creative Excellence Award for best new course construction, the Heritage Award for the best course renovation or restoration and the Environmental Award for the best environmentally responsible new or renovated course.

Award entries will be accepted through Nov. 1.

The awards will be handed out Feb. 11 at the GCBAA's dinner that will be held in conjunction with the Golf Industry Show in Orlando.

ASGCA moves to Milwaukee area

Brookfield, Wis. - The American Society of Golf Course Architects moved its headquarters from Chicago to Brookfield, Wis. The address of the ASGCA is 125 North Executive Drive, Suite 106. The telephone number is 262/786-5960, and the fax number is 262/786-5919.

Three students win GCSAA essay contest

Lawrence, Kan. - One doctoral student, a master's candidate and an undergraduate were selected as the 2004 Golf Course Superintendents Association of America Student Essay Contest winners.

The Environmental Institute for Golf

funds the contest and awards a \$2,000 scholarship to the first-place recipient, \$1,500 for second place and \$1,000 for third. The contest, created in 1963, is open to GCSAA-member undergraduate and graduate students pursuing degrees in turfgrass science, agronomy or any field related to golf course management.

First place went to Phil Dwyer, a doctoral candidate at Michigan State University, for his entry, "Dollar spot: a new understanding." Cory St. Clair, a junior at Purdue University, finished second for his entry, "Impact of Round Up Ready Creeping Bentgrass on golf course management." Patrick McCullough, a master's candidate at Clemson University, finished third for his entry, "Pre-emergence herbicides may exacerbate genetic instabilities of Ultradwarf Bermudagrass."

Ad campaign promotes PGA job center

Palm Beach Gardens, Fla. - A \$400,000 multi-media advertising campaign is targeting employers and job seekers in the golf industry. The campaign began the week of July 12 with a 30-second commercial on The Golf Channel.

The PGA will introduce a new icon - an animated golfer - to promote its employment center at www.pga.com/ employment.

The campaign includes three 30-second television spots and three print advertisements promoting the employment center and its benefits to employers in the golf industry. The advertisements also appeal to individuals pursuing a variety of other jobs in the golf industry.

More than 166 television spots will air on The Golf Channel and Turner Networks. Print ads will run in PGA Magazine, BoardRoom, Golf Business, Club Director, African-American Golfer's Digest and GolfWeek.

The PGA Employment Center serves as a clearinghouse for all types of jobs in the golf industry. There are an estimated one-half million golf course jobs, including positions in accounting, health and fitness, corporate management, marketing, manufacturing, rangers, food-and-beverage preparation and merchandising.

Jack Nicklaus to receive award

Lawrence, Kan. – Jack Nicklaus was selected to receive the 2005 Old Tom Morris Award from the Golf Course Superintendents Association of America. The award will be presented at the GCSAA opening session, Feb. 10, held in conjunction with the 2005 Golf Industry Show Feb. 7 to 12 in Orlando.

The GCSAA's most prestigious honor is presented each year to an individual who, through a continuing lifetime commitment to the game of golf, has helped to mold the welfare of the game in a manner and style exemplified by Old Tom Morris. Morris (1821-1908) was greenkeeper and golf professional at the St. Andrews Links Trust Golf Club of St. Andrews, Scotland; a four-time winner of the British Open (1861, '62, '64 and '67); and ranked as one of the top links designers of the 19th century.

Course News

Ground broken on golf project

Lynchurst, N.J. – EnCap Golf broke ground on the \$1-million Meadowlands Golf Project in New Jersey. The project is a brownfield redevelopment. The central component of the project is the clean up and remediation of landfills and the construction of two first-class golf courses, related amenities and the preservation of hundreds of acres of open space. The 18-hole, links-style courses will be open to the public.

The landfill closure and remediation of this phase of the golf project is expected to take four years to compete. The construction of the golf courses and resort village is expected to be completed within seven to 10 years.

"The Meadowland Golf Project is the perfect example of how public/private partnerships can succeed in protecting our natural resources, while building neighborhoods and creating economic opportunities," says Bill Gauger, president of EnCap Golf Holdings.

Incline Village reopens course

Incline Village, Nev. - The par-72, 18-hole Championship Course at In-

cline Village went through a renovation, including replacing the in-ground irrigation system and renovating the greens, bunkers, tees, fairways, roughs, cart paths, landscaping and practice facilities. Limited residents-only play started Sept. 1, and public play begins May 2005. Architect Kyle Phillips of Golf Course Design; irrigation specialist Bryant Taylor of Gordon Golf; United States Golf Association Turf Advisory Service and Incline Village's grounds superintendent Jeff Clouthier oversaw the \$4.8-million construction project.

Robert Trent Jones Sr. designed the course.

The greens were rebuilt to meet USGA specifications for consistency and efficient drainage. Greens were reseeded with a blend of creeping bentgrass. Bunkers were reshaped to reflect the course's original design and were built for optimum drainage and sand consistency. The fairways and roughs were stripped, resoiled and reseeded with Kentucky bluegrass. The tees were reseeded with a bluegrass/rye combination for cold weather durability.

Also, the Chateau clubhouse, which is 22,580 square feet, went through a complete \$7.9-million renovation.

Burnt Mill course under construction

Wells, Maine – Burnt Mill Country Club, which is being developed on 360 acres of farmland and woodlands, will feature an 18-hole, 7,292-yard championship golf course designed by PGA Tour player Brad

Faxon and Maine golf architect Brad Booth; a nine-hole, par-3 short course de-

signed to be played in 90 minutes or less; a golf practice and teaching facility; a clubhouse built around a historic barn and a swimming pool. The nine-hole course is expected to open in the spring of 2005, and the 18-hole course is expected to open sometime in 2006.

Mystic Rock reopens course

Farmington, Pa. – PGA Tour winners Rocco Medjate and Vijay Singh and Nemacolin Woodlands Resort & Spa owners Joe Hardy and Maggie Magerko reopened the Mystic Rock course in June. Most notably, the 18th hole was relocated, which narrowed the fairway and placed the green in a 10,000-seat amphitheater setting.

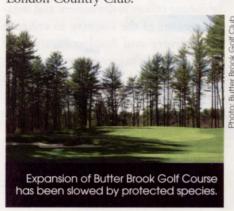
"All of the greens have been contoured and reshaped, which will give PGA Tour officials greater flexibility and opportunities to tuck the hole locations behind the bunkers and closer to the edge of the greens," says Brian Anderson, golf course superintendent at Nemacolin Woodlands.

Protected species slows development

Westford, Mass. – Ed and Betty Kennedy, owners of the Butter Brook Golf Club, want to expand their nine-hole course, which opened in April, with another nine holes, but rare blue-spotted salamanders and negotiation with the Natural Heritage and Endangered Species Program are hindering them. The protected species is propagating in and around a vernal pool on land adjacent to the would-be back nine. Construction of the second loop is scheduled to commence this fall.

Architect Mark Mungeam worked around a similar pool on the front nine where newts are thriving. Mungeam's back-nine design provides the pool in question with more than 600 feet of room. Bay State statutes normally mandate that protected wetlands and vernal pools be given a 100-foot buffer. But the NHESP hasn't changed its mind, and the situation remains in limbo, though the Kennedys and Mungeam are confident a compromise will be reached.

Additionally, Mungeam is busy creating the private Quail Ridge Country Club in Acton, Mass. Also under construction is the spectacular Golf Club at Oxford Greens in Oxford, Conn., where he's working with Billy Casper Golf Management on a daily-fee course in a new Del Webb community. Also in Connecticut, Mungeam is helping to renovate the New London Country Club.





Knock Out Spider Mites and many other insect pests!

You won't find a botanical insecticide that provides Y better control of mites, white flies, caterpillars and other soft-bodied insect pests!

Joe Canedo, the Superintendent for the DoubleTree® Golf Resort, also has responsibility for the grounds of the DoubleTree Hotel. The hedge shown above, which extends for several blocks, along the hotel,

golf course, clubhouse and parking areas, was severely infested with red

spider mites last August.

For a FREE brochure and insect ID chart, call: 1-800-821-7925 or visit www.pbigordon.com



Azatrol® was applied to the entire hedge. Joe checked several times after the application and was pleased when he saw no signs of any insect activity. Joe was also pleased with Azatrol's low odor, positive environmental profile and low mammalian toxicity.

Make Azatrol your product of choice for infestations of mites and other soft-bodied insect pests.



Grizzly Ranch to open next year

Portola, Calif. - Grizzly Ranch, the first private golf and recreation community in the western Sierra's Feather River country, initiated its first public offering of home sites and golf memberships. Construction is expected to be completed this year on an 18-hole signature golf course designed by Robert Cupp. Members begin play in the summer of 2005.

Cupp and land planner Gage Davis created a golf course that blends into its natural California environment. The family-friendly, par-72 course is designed to attract players of all abilities and age levels.

Public-run course in planning stage

Shawnee, Mo. - MillCreek Land Co. has proposed to develop The Links at Mill Creek golf course and community. The 700-home development will feature a 7,100-yard, city-operated golf course. The 250-acre, 18-hole, par-72 course, clubhouse, and practice and maintenance facilities would cost about \$11 million. MillCreek Land presented development details to the Shawnee City Council in May. Todd Clark of CE Golf Design would design the course. Construction of the course could start this fall, and it could open in late 2006.

Kinsale course opens in Ohio

Powell, Ohio - The Arthur Hills-designed Kinsale Golf and Fitness Club opened late this spring. It features an 18-hole, par-72 course that measures 7,200 yards from the tips. The turf has been left to grow in and mature for almost two years before opening.

"Leaving the grass to grow and strengthen its roots without play for two

years is like five years of growth with play," says golf course superintendent Don Sutton. "This, along with Ohio's largest 18-hole irrigation system, promises we will have well-established grass, conditioned to perfection."

Kinsale is accepting membership applications and will allow limited nonmember play during the first season.

Miacomet course ready for season

Nantucket Island, Mass. - The nine new Howard Maurer-designed holes at Miacomet Golf Course, the only public 18-hole course on Nantucket Island, heads into its first full season of play.

"Howard did an outstanding job of fitting nine new holes of comfortable golf on a relatively small piece of property," says Charlie Passios, president of Moors, which manages the course for the owner, the Nantucket Islands Land Bank. "We get glowing comments from



SAVE 2/3 of GRASS SEED WAIT DAY Example - Maryland State Highway Dept.: one week vs. three OR – as U.S. civil service head groundsman said: - "We've never seen grass up so fast! Now 3 or 4 days from sowed seed routinely! Used by U.S. Air Force to control dust on dirt flying fields, World War II.

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easy" When 115° to 122° daily in Palm Springs, Calif. Typical California green kept green and smooth by Monday a.m. SUPERthrive spraying.

"SUPERthrive™ kept all our greens uniformly thick and wear-tolerant, with no problems, while all other courses in the area lost 6 to 14 greens. SUPERthrive™ WORKED WONDERS ON 400 TREES WE PLANTED. *SUPERthrive*™ is a blessing. *SUPERthrive*™ kept the greens alive and together through the dry summer days. It also keeps roots penetrating in COLD weather

Biggest ever moved

- Guiness Book of Records, "Biggest ever moved." enabled by SUPERthriveTM Standardly, with SUPERthrive, TM contractors and parks claim to ACCEPT NO LOSS of trees. Worldwide (though no sal
- 100% of 2000 SUPERthrive™ dealers asked at trade shows said they are "aware that SUPERthrive™ revives
- shrubs and trees with as little as green under their bark." Said U.S.D.A. head grower scientist - "Far more growth about w ground than when fertilizers used alone.
- Over 500 parks systems heads wrote that nothing works so well
- Saving 50,000 Mojave Desert trees and plants, for U.S. Bureau of Land Management, while **beautifying** 100 nearby Las Vegas hotels #1 Environment saver. Regularly helps win American Rose, Orchid, etc., Societies' flowering plant competitions.
- ned offer-proof:- Since 1940, unchallenged, \$5,000 guaranteed to be world champion Activator, Reviver, Trans/Planter, Extra Grower, and Perfecter. - Far Best. Unique. Nothing is at all "like" it.
- Over 60 years, NEVER ONE BOUNCED on professional guarantee: "After using first gallon - money back if you wish you had not bought it." (Public agencies or established busi

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people. They want to know when we are renovating the other nine so everything matches.

The Nantucket Islands Land Bank is charged with protecting the island's unique and endangered landscapes.

"The new holes look like they have been there for a long time and simply dropped onto the land," says Eric Savetsky, Land Bank director. "Howard's vision resulted in exactly what we had been hoping for. I've only heard good things from golfers."

Maurer enjoyed the project that called on him and the rest of the development team to overcome a number of environmental and political obstacles.

"The Land Bank staff let the experts do their thing and create what we thought needed to be created," Maurer says. "With the sand-plain grasses, sensitive soils, flowing topography and ocean nearby, the site was screaming for a links-style course. And that's what we delivered."

Getting the new nine built was no small feat. The Land Bank acquired the property a number of years ago because it was going to be converted from an existing nine-hole course into housing, according to Kelly Durfee Cardoza of Avalon Consulting Group.

Trump Golf Club to welcome **ADT Challenge**

Palm Beach, Fla. - The Trump International Golf Club will host the NBC's 13-year-old ADT Golf Skills Challenge, featuring PGA Tour professionals. The event will be taped Nov. 15 and will air Dec. 25 and 26. The competition was held at the Boca Raton Resort & Club the past three years. The ADT Skills Challenge will be the first PGA-sanctioned event to be staged at Trump International Golf Club, which opened in 1998.

Grayhawk to host Tommy Bahama golf challenge

Scottsdale, Ariz. - The Grayhawk Golf Club will host the Tommy Bahama Challenge, put on by Jastrow Productions, Gaylord Sports Management, Tommy Bahama and the PGA Tour. The newly created PGA-tour-sanctioned, challenge-season event will be held Jan. 1, 2005. Grayhawk comprises the Talon Course, designed by David Graham and Gary Panks and the Raptor Course, designed by Tom Fazio.

Pinehurst Resort kicks off road to 2005 U.S. Open

Pinehurst, N.C. - In June, Pinehurst Resort started the official clock to the 2005 U.S. Open - 356 days and count-





ing until the nation's golf championship returns to its historic grounds.

Employees of the resort gathered on the front lawn of the historic Carolina hotel to give a wave of welcome to the anticipated 45,000 international spectators expected to visit daily during next year's U.S.



Open. The championship will be sited on Pinehurst's No. 2 course June 16 to 19.

Carmel to host girls junior event

Charlotte, N.C.—The United States Golf Association selected Carmel Country Club as the host for the 2006 U.S. Girls' Junior Championship July 17 to 22.

Carmel Country Club is a 36-hole facility founded in 1947. The south course was designed by Ellis Maples and opened in 1969. In 1988, Rees Jones made revisions to the South Course.

"We are delighted to be chosen to host the 58th U.S. Girls' Junior Championship," says general chairman Dave Cathcart. "Carmel Country Club has a long history of supporting junior golf and having this championship on our South Course is testimony to that commitment."

Carmel Country Club, which is hosting its first USGA championship, has

been the host site of the 2001 North Carolina Women's Amateur, the 2004 Carolina Senior Women's Amateur as well as serving as the qualifying site for the Kemper Open in the 1970s.

The U.S. Girls' Junior was played at Mira Vista Country Club in Fort Worth, Texas, July 19 to 24 and will be played at Banbury Golf Club in Eagle, Idaho, July 18 to 23 in 2005.

U.S. Senior Open to be played at Whistling Straits

Kohler, Wis. – The United States Golf Association selected Whistling Straits Country Club as the site of the 2007 U.S. Senior Open Championship, scheduled July 5 to 8.

Designed by Pete Dye and opened in 1998, the Straits Course at Whistling Straits is a links-style course located along two and a half miles of Lake





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Michigan shoreline north of Milwaukee. Using land that was previously an Army base, the design employs wide fescue fairways and sand-dune bunkers to complement the prevalent windy conditions. All four par-3 holes and four additional holes are adjacent to Lake Michigan and play from above beach level to 80-foot bluffs.

"We are excited to host this major championship," says Herbert V. Kohler Jr., president and chief executive officer of Kohler Co. "The world's most seasoned veterans of the game will be tested by a course that honors the origins and early character of golf. There's nothing in championship play this side of the Atlantic like Whistling Straits."

The site of the 2004 PGA Championship, Whistling Straits also has played host to the 1999 PGA Club Professionals Championship. It will be hosting its first USGA Championship.

Flint Hills National selected to host Senior Amateur

Andover, Kan. – Flint Hills National Golf Club will host the 2007 USGA Senior Amateur championship, which will be played Sept. 1 to 6.

Opened in 1997 and designed by Tom Fazio, Flint Hills will offer the challenge of a highly rated golf course on hilly terrain with many bunkers. Flint Hills hosted to the 2001 U.S. Women's Amateur.

"This will be our second national championship, and we are looking forward to offering the best senior amateurs a warm welcome and a challenging test of golf," says Jeff Johnson, president of Flint Hills National Golf Club.

The Senior Amateur will be played at Bel Air Country Club in Los Angeles Oct. 9 to 14, 2004; at The Farm Golf Club in Rocky Face, Ga., Sept. 17 to 22, 2005; and at Victoria National Golf Club in Newburgh, Ind., Sept. 16 to 21, 2006.

Merion to host Walker Cup

Ardmore, Pa. – The East Course at Merion Golf Club will host the 2009 Walker Cup Match, a biennial international amateur team competition. The match will be played Aug. 15 and 16.

Opened in 1912 and designed by Hugh Wilson, Merion has hosted 16 previous USGA championships – the most of any club – including four U.S. Opens and five U.S. Amateur championships. Merion also will host the 2005 U.S. Amateur prior to the Walker Cup Match.

"We are delighted to welcome one of the top amateur competitions in all of golf," says William Albertini, president of Merion Golf Club. "We are committed to the spirit of this international competition, and we are dedicated to showcase our fine golf course and hospitality. We look forward to adding another chapter to Merion's rich golf history."

Prior to 2009, the Walker Cup Match will be played at the Chicago Golf Club from Aug. 13 to 14, 2005 and at the Royal County Down Golf Club in Newcastle, Ireland, from Sept. 8 to 9, 2007.

SolVista features golf school

Granby, Colo. – SolVista Golf Club was selected as a John Jacobs' Golf School location. The school conducted 14 sessions from June 13 through August 1. Golf professional Brain Ryall says SolVista is an ideal location for a golf school partly because it has extensive practice facilities. Other well-known Jacobs school sites include Poppy Hills Golf Club & Monterey Marriott in Pebble Beach and Stallion Mountain Country Club & Las Vegas Hilton.

Orlando Marriott wins golf award

Orlando, Fla. – The Orlando World Center Marriott Resort & Convention Center won the 2004 Gold Tee award from Meetings and Conventions magazine. The award honors outstanding golf and meeting properties. Hawk's Landing Golf Club's 18-hole, championship course is nestled amidst the resort's 200 tropical acres. The par-72 course features hills, undulating tifdwarf greens, aquatic vegetation, tailored tee boxes, native grasses, multifarious trees, manicured fairways and water in play on 15 holes.

Supplier News

BASF's Insignia fungicide received registration from the California Environmental Protection Agency. Insignia provides golf course superintendents control of

more than 15 turfgrass diseases and suppression of dollar spot. The active ingredient in the fungicide is pyraclostrobin.

Shane Wright, golf course superintendent at BallenIsles Country Club in Palm Beach Garden, Fla., won the Revolver Sweepstakes, sponsored by Bayer Environmental Science. Wright received 200,000 Accolades points to use toward a selection of rewards prizes. The Revolver Sweepstakes was open to Southern superintendents who purchased Revolver herbicide. The offer included double Accolades points for the first Revolver purchase, in addition to one entry into the sweepstakes for every case purchased through March 31, 2004. Bayer's Accolades program allows users to earn points toward rewards by purchasing products.

Briggs & Stratton Corp. signed a definitive agreement to acquire Simplicity Manufacturing for \$227.5 million. Simplicity is a designer, manufacturer and marketer of a range of outdoor power equipment. Simplicity's products are distributed through independent dealers under the brand names Simplicity, Snapper, Ferris and Giant-Vac. Briggs & Stratton expects the acquisition will be accretive to diluted earnings by 35 cents to 45 cents per share in fiscal 2005 based on preliminary purchase price allocations. The transaction is expected to close at the beginning of Briggs & Stratton's fiscal 2005 first quarter, at which time Simplicity will become part of the Briggs & Stratton Power Products Group.

All divisions of **Dakota Peat & Equipment** are under the same roof. The move to co-locate the divisions, along with a corresponding expansion of the design and manufacturing capabilities of Dakota Equipment, is intended to position the company for future growth and to further the company's effort to provide the best possible service to customers. Expansion of the manufacturing portion of the facility, which has been increased by almost 50 percent to more than 125,000 square feet, provides space for the production of several new lines of equipment.

DuPont's Surlyn Reflections body panels will be used as part of the Precedent golf car made by Club Car. The body panels provide maximum strength and flexibility, while the molded-in color offers a high gloss, automotive finish and UV pro-



tection, which enables the golf car to withstand dents, collisions and weather.

Lakeland, Fla.-based Golf Ventures, a maintenance supply company for the golf course industry, expanded their territory with Jacobsen Equipment Products to include 13 new counties in Florida.

GPS Industries partnered with broadband wireless provider Epproach Communications to provide its Inforemer GPS-based golf management system to high-end golf and resort communities on Hilton Head Island. EC is implementing a high-speed wireless network for Internet access.

The North Carolina Department of Labor has given special recognition to Jacobsen for two million hours of operation with no disabling injuries. Other awards presented to Jacobsen by the N.C. Department of Labor included, two Certificates of Special Recognition and the Certificate of Safety Achievement Gold Award.

Mark Michaud, superintendent at Shinnecock Hills Golf Club in Southampton, N.Y., which hosted the 2004 U.S. Open, outfitted his crew with equipment from John Deere Golf & Turf One Source. John Deere supplied equipment for the U.S. Open, providing everything from mowers and bunker rakes to utility vehicles and portable power equipment. John Deere will provide tournament equipment support for all upcoming PGA Tour events.

Lesco opened its 25th new service center in 2004 in late May in Novi, Mich.

Players Turf International expanded its business operations for its synthetic turf products for golf greens, tees, fringes and fairways. The company established two operations centers in the Southeast and added 14 employees since late 2003, including two senior designer/installers. Players Turf also plans to add six additional project installers in the Southeast U.S.

Redexim Charterhouse has made available two rebuild kits for its line of Verti-Drain deep-tine aeration units and most older units. The minor overhaul kit includes the instructions and necessary parts to rebuild the drawrods and tine heads. The major overhaul kit includes the minor overhaul kit plus parts to rebuild the crank and bearing supports and instructions.

SePro Corp. purchased certain assets of Griffin's Turf, Nursery, Ornamental and Aquatics business. SePro is a specialty environmental and life sciences company located in Carmel, Ind. The acquisition includes Avast! and Avast! SRP aquatic herbicides, Komeen aquatic herbicide/algaecide, K-Tea and K-Pool aquatic algaecides, Junction fungicide/ bactericide, Pentathlon fungicide, Spin Out plant growth regulator, Camelot or-

Any Way You Cut It, TifSport Can Stand Up To Frequent Lower Mowing Heights.



TEES: 3/8"

Thanks to TifS[port's superior turf density, sod strength and good lateral growth rate, it's perfect for high traffic areas like tees. It also shows improved resistance to and quick recovery from divot injuries.

You can maintain a good TifSport rough of up to 1-1/2", so why not stick with the same grass you have on your tees and fairways? You'll really be cutting down on your management headaches.

FAIRWAYS: 5/8"

TifSport's leaf blade orientation and stiffness make it ideal for fairways. A lot of superintendent's are hearing from golfers that TifSport gives a better ball lie than other bermudas.

SURROUNDS: 3/8"

TifSport has just what it takes for a perfect landing area. It holds good shots and it's tough enough to take lots of shots without injury. No wonder more and more superintendent's are using TifSport on their greens collars.

Unlike many bermudagrass varieties, TifSport can handle a wide range of mowing heights. That's why it's so ideal for tees, fairways, roughs and approaches. Wall to wall TifSport. Talk about a superintendent's dream. TifSport also recovers very quickly from injury, has excellent cold-tolerance, color, texture, and density, as well as

improved pest resistance. And while it might green up a little later than some bermudas come spring, once it takes off it's very aggressive. A lot of superintendents feel this is a big plus when they're dealing with fluctuating spring temperatures. TifSport. Specify it by name for your new course or renovation project.







namental fungicide and rights to Vendex miticide and Kocide 2000 TNO fungicide. The financial details of the transaction weren't disclosed. Griffin is a wholly owned affiliate of DuPont.

Syngenta Professional Products and Pursell Technologies made a donation to the Clearview Legacy Foundation. The contribution of almost \$45,000 is for the preservation, renovation and maintenance of Ohio's (East Canton) Clearview Golf Course, the only golf facility in the world designed, built, owned and operated by an African-American, William Powell.

A team of Jacobsen engineers is the recipient of the Textron Corp. chairman's award for their design and development of an electric mower used to cut golf greens. The mower is designed to be quieter and more environmentally friendly than traditional mowers. Harry Quinn Derby, Carlos Bellot and Andrew Modzik work in the Wilmar manufacturing facility in the Charlotte, N.C. headquarters for the Jacobsen lawn and turf business.

The Toro Co. celebrated its 90th anniversary with Minnesota Governor Tim Pawlenty around the theme, "innovation days." The company put together demonstrations and displays to showcase its nine decades of innovation. Toro will continue to increase its investment in engineering, research and development. Last year, the company invested 2.8 percent of its sales, totaling \$41.5 million, in ER&D. This year, the company increased its spending to 3.1 percent of sales, totaling \$50 million.

Personnel news

Greg Pecenka is the new golf course superintendent for The Duke at Rancho El Dorado in Maricopa, Ariz.

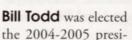
Steve Philbrook is the new director of golf at Ibis Golf & Country Club in West Palm Beach, Fla.



Donald Padgett II is the new president of

Pinehurst Resort in North Carolina. Padgett will report to Rich Beckert, ClubCorp's executive vice president of resorts. ClubCorp manages Pinehurst.

Pat Laughlin was named general manager of the Laughlin Ranch Golf Club in Bullhead City, Ariz.





Gary Glaser is the new director of golf at Eagle Ridge Resort & Spa in Galena, Ill.

board of directors of the CPGCSA.

Jeff Jensen was named director of sales for Angel Park and The Legacy Golf Clubs in Las Vegas.

Bill Love was elected president of the American Society of Golf Course Architects. Love will also chair the executive committee. Love's platform as president will include environmental concerns, technology and affordable golf.

The American Society of Golf Course Architects welcomed nine new associate members: Ian Andrew, a senior designer with Carrick Design in Don Mills, Ontario, Canada; Ty Butler, vice president and project architect for Robert Trent Jones II in Palo Alto Calif.; Paul Cowley, principal of Linksland and the senior designer for Love Golf Design in St. Simmons Island, Ga.; Alan Hamilton, principal of Hamilton Design Co. in Jacksonville, Fla.; Grant Haserot, senior design associate with Schmidt-Curely Design in Scottsdale, Ariz.; Jeff Lawrence, principal of Lawrence Golf Designs in Cave Creek, Ariz.; Brian Lussier, vice president of Robbins and Associates International in Cary, N.C.; Scot Sherman, senior associate designer with Weed Golf Course Design in Ponte Vedra Beach, Fla.; and Gary Stephenson, principal designer for Phil Mickelson Design in Celina, Texas.



Alice and Pete Dye and Arnold Palmer were elected fellows of the American Society of Golf Course Architects. The Dyes have served as ASGCA presidents, and Palmer, an honorary member by virtue of receiving the Donald Ross Award.

John A. Beckett, chief operating officer of ClubCorp, was named the company's chief executive officer as well. Bob Dedman Jr., who had been c.e.o., continues as chairman.

Arnold Cleghorn was promoted to president of Pursell Technologies. He was also named the to company's board.

Mark Printer coordinates activities for The Experience at Farm-Links tours after being retained by Syngenta Professional Products. Printer will coordinate activities during tours of



the 18-hole championship research and demonstration golf course at Pursell Farms in Sylacauga, Ala.

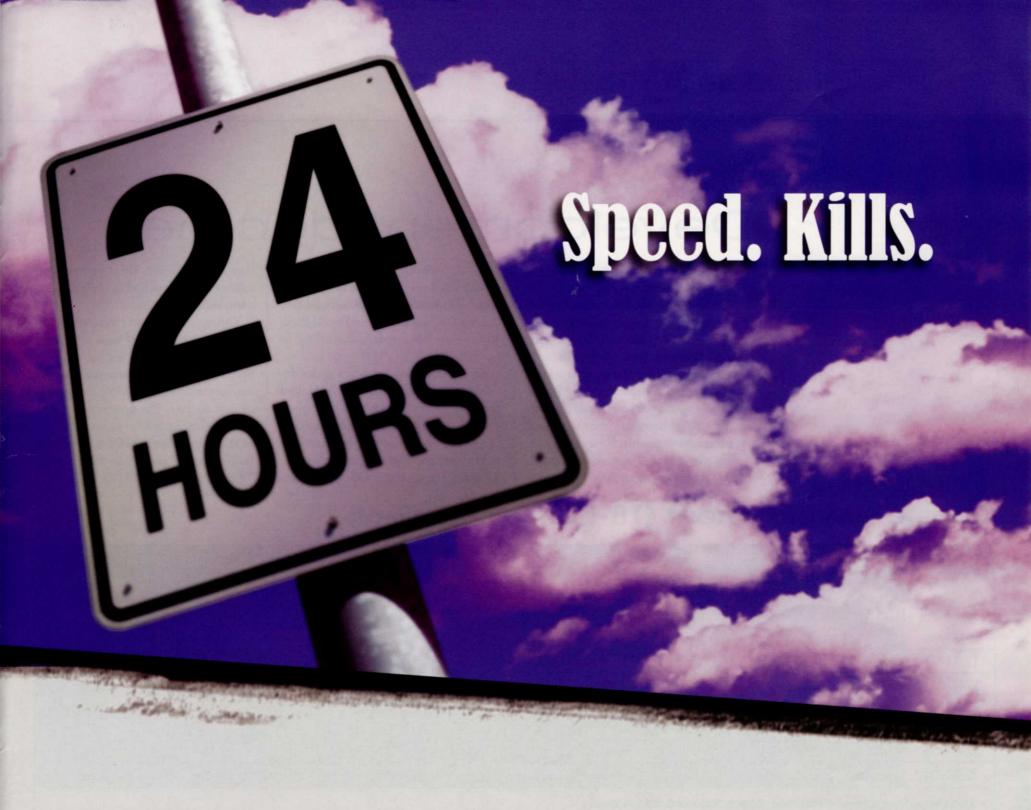
The Outdoor Power Equipment Institute named its 2004/2005 board of directors. David R. Zerfoss, president of Husqvarna Forest and Garden, was named chairman; Kendrick B. Melrose, chairman and chief executive officer. of The Toro Co., was named vice chairman; and Fred J. Whyte, president of Stihl, was named secretary/ treasurer.

Jim Turner joined Mamaroneck, N.Y.based Aqua-Maxx as the director of sales and marketing. Aqua-Maxx is a professional turf care company.



Kevin Markley joined Rain Bird's golf division as a project engineer.

Mary Harer joined Columbia Seeds. Harer will be in charge of international sales, production and shipping. GCN



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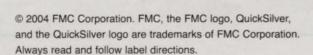
QuickSilver™ T&O herbicide provides fast, broad-spectrum control of post-emergent broadleaf weeds, including tough-to-control weeds such as clover and thistle.

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And since QuickSilver is effective across a wide range of temperatures, it can be used in many geographic regions across the U.S.

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Development decline

hen rounds played don't increase but the number of golf facilities does, it puts pressure on course operators to maintain acceptable revenue levels. The consumer, however, has more affordable options. Golf course operators have been forced to market more aggressively and creatively, getting to know their customers better and becoming more involved in player development. New courses are being planned and opened at a much slower rate than during 2000. The num-

ber of 18-hole equivalent courses opened during 2003 – 171 – is the lowest since 1987. The industry needs to build golf courses less expensively and build them where they are needed, according to Golf 20/20.

An effective way to measure the development of golf courses in the United States is to look at 18-hole equivalent courses, as opposed to courses that might have nine holes or facilities that might have multiple courses. This analysis ensures consistency. Below are num-

bers for regulation, short courses and total courses, as well as overall development numbers.

Throughout the past three years, the percentage increase of new regulation and short courses has settled at a 20-year low rate. Competitiveness in the marketplace seems to be impacting types of new courses. The percentage of new courses that are public access (daily fee or municipal) declined from 80 percent in 2001 to 75 percent in 2002 and to 74 percent in 2003. GCN

Course development (18-hole equivalent)

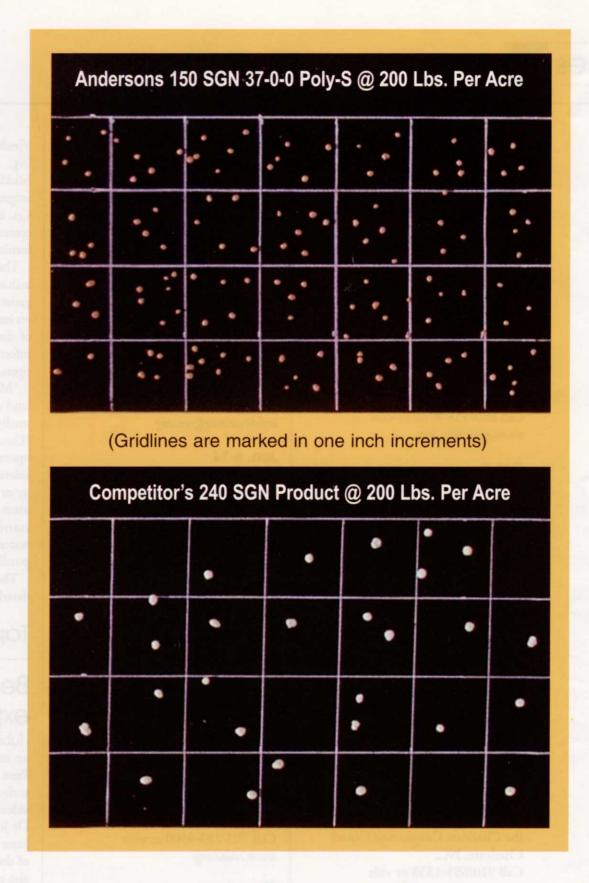
REGULATION COURSES				SHORT COURSE	S (EXECUTIVI	E AND PAR 3)	TOTAL COURSES			
	NUMBER OF COURSES	PERCENT INCREASE	OPENINGS*	NUMBER OF COURSES	PERCENT INCREASE	OPENINGS*	NUMBER OF COURSES	PERCENT INCREASE	OPENINGS*	
12/31/98	12,347	2.6%	304	1,181.5	1.7%	23.5	13,528.5	2.5%	327.5	
12/31/99	12,690	2.8%	340	1,216.5	3.0%	35.5	13,906.5	2.8%	375.5	
12/31/00	13,032.5	2.7%	365.5	1,235.5	1.6%	33	14,268.5	2.6%	398.5	
12/31/01	13,288	2.0%	260	1,261.5	2.1%	24	14,549.5	2.0%	284	
12/31/02	13,446.5	1.2%	199	1,278.5	1.3%	21	14,725.5	1.2%	220	
12/31/03	13,551.5	0.8%	154	1,275.5	-0.2%	17	14,827.5	0.7%	171	
12/31/04**	13,682	1.0%	148	1,276.5	0.1%	8.5	14,958.5	0.9%	156.5	

^{*} Excluding reconstructions ** Projected; Source: National Golf Foundation

2004 year-to-date summary report

Туре		roposed 18-hole			Planning 18-hole		Unde 9-hole	r Construc 18-hole			ompleted 18-hole	
New Facilities												
Daily Fee	32	164	196	50	196	246	52	136	188	23	33	56
Municipal	11	38	49	12	33	45	11	17	28	1	7	8
Private	2	18	20	9	51	60	13	62	75	1	17	18
Total	45	220	265	71	280	351	76	215	291	25	57	82
Additions				R. W. B.								
Daily Fee	30	17	47	51	4	55	80	15	95	19	0	19
Municipal	12	1	13	11	0	11	10	1	11	1	0	1
Private	7	1	8	9	6	15	18	6	24	12	0	12
Total	49	19	68	71	10	81	108	22	130	32	0	32
Grand Total	94	239	333	142	290	432	184	237	421	57	57	114

^{*} Figures do not include courses classified as reconstructions; Source: National Golf Foundation; as of 7/22/2004



When Every Square Inch Counts™

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active ingredients. With Andersons, there's no need to worry about improper coverage. You can count on us: our nationwide network of territory managers, distributors, seasoned customer service team, and expert R&D staff. To order, call your local Andersons distributor. For more information, call us at 1-800-225-2639. Or you can visit our web site at www.andersonsgolfproducts.com.



Calendar of events

Sept. 12-15

Florida Turfgrass Association's 52nd Conference & Show Hyatt Regency Downtown Tampa, Fla.
Call 800/882-6721 or visit www.figa.org

Sept. 24-26

International Lawn, Garden & Power Equipment Expo Kentucky Exposition Center Louisville, Ky. Call 800/558-8767 or visit www.expo.mow.org

Oct. 5

OTF Annual Golf Tournament Golf Club of Dublin, Dublin, Ohio Call 888/683-3445 or e-mail info@ohioturfgrass.org

Oct. 13-14

The Southern California
Turfgrass Council's Turfgrass
and Landscape Expo
Fairplex – LA County Fairgrounds,
Pomona, Calif.
Call 800/500-7282 or e-mail
expo@turfcouncil.org

Nov. 3-6

2004 PGMS School of Professional Grounds Management and 15th Annual Green Industry Exposition Charlotte Marriott City Center and the Charlotte Convention Center Charlotte, NC. Call 910/695-1333 or visit www.ncturfgrass.com

Nov. 14-16

25th Annual International Irrigation Show Tampa Convention Center Tampa, Fla. Call 703/536-7080 or visit www.irrigation.org

Nov. 16-18

New York State Turfgrass Association's Turf and Grounds Exposition Rochester Riverside Convention Center Rochester, N.Y. Call 800/873-8873 or visit www.nysta.org

Dec. 7-9

Rocky Mountain Regional Turfgrass Association's 51st Annual Turfgrass Conference and Trade Show Holiday Inn Denver International Airport Denver Call 303/770/2220 or visit www.rmrta.org

Dec. 7-10

Ohio Turfgrass Conference & Show Greater Columbus Convention Center, Columbus, Ohio Call 888/683-3445 or e-mail info@ohioturfgrass.org

Jan. 6-11

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

Feb. 10-12

Golf Industry Show
Orlando Convention Center
Orlando, Fla.
Call 800/472-7878 or 800/933-4262
or visit www.golfindustryshow.com

Feb. 27-28

28th Annual Exposition

Club Managers Association of America Ernest N. Morial Convention Center New Orleans Call 703/739-9500 or visit www.cmaa.org

Books

Irrigation guide to help improve course systems

Chicago – A new book about golf course management explains the importance of irrigation and successful irrigation methods. "Golf Course Irrigation, Environmental Design and Management Practice" is a guide to developing and maintaining effective irrigation systems that conserve water and improve course aesthetics and performance.

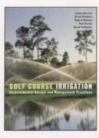
The authors are James Barrett, immediate past president of the American Society of Irrigation Consultants; Brian

Vinchesi, president of Irrigation Consulting; Robert Dobson, president of Middletown Sprinklet Co.; Paul Roche, irrigation division manager at S.V. Moffet Co.; and David Zoldoske, director of the center for irrigation technology at California State University.

The book is supposed to help golf course architects, builders, superintendents, irrigation consultants, designers and installers improve playing conditions in the face of diminishing natural resources. It's an informative reference for owners, developers, local officials and students.

"More than 1.3 million acres of golf land use 476 billion gallons of water an-

nually," Barrett says.
"Course owners and
operators have considerable responsibility to ensure that they
meet environmental
standards and use
water as efficiently as
possible."



The book costs \$75 and can be ordered by calling 312/372-7090.

Tapes

Bentgrasses video explains benefits

Hubbard, Ore. – Tee-2-Green offers an informational video, "Managing the Penn A and Penn G Bentgrasses," free to turfgrass management educators. The video contains the latest information from Dr. Joe Duich, professor emeritus at Penn State University. Duich is the developer of the Penn As and Penn Gs. The video also includes comments and information from superintendents who currently manage the Penn As and Penn Gs on their golf courses.

The program explains the benefits the Penn A and Penn G bentgrasses provide superintendents and players. It addresses aspects of management such as establishment, grow-in, interseeding practices, fertilization, irrigation, mowing maintenance and cultural practices.

Call 800/547-0255 or 800/938-4330 for a copy of the video. 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.

Important exceptions

was a consultant for a course that experienced an \$800,000 loss the previous year. The owner's solution was to keep making the course better, and his young superintendent went along with him. Maintaining the course's 260 acres of groomed turf required an annual maintenance budget of almost \$900,000.

My analysis showed that while the course was demanding \$65 fees, it was commanding only \$45 golf. That explained the loss.

I persuaded the superintendent to determine what would need to be sacrificed if the budget were reduced to \$650,000. The superintendent replied with a list that made it close, including letting 60 acres go unmaintained. The owner kept asking what it would look like if this were cut or if that were sacrificed. The superintendent's response, based on his carefully considered recommendations, was that the course wouldn't look all that different.

Six months after the suggested maintenance changes had been made, I visited the course, and it still looked high profile. The owner also lowered the fee, which made the course more attractive to area golfers. The course's play increased, and along with sacrifices in some other areas, the owner was able to cut his loss to \$230,000 the next year. By the third year, they had broke even, and in the fourth year, the course was in the black.

It was a lot of work, but the story had a happy ending.

I share this story because, as a marketing consultant, the one true measure I use to evaluate the performance of a golf course is revenue. You can evaluate golf courses as being private, public, municipal, military, semiprivate or by whatever intended clientele they aim to serve. You also can evaluate them for agronomic quality – some are excellent, others are adequate, and some are in poor condition.

From a business and marketing perspective, the critical factor is whether a golf course is losing money, is profitable or is highly profitable. These are the only business possibilities.

A common mistake of golf course marketing is letting a general expectation about what kind of course you have determine how much to charge. While it's true private courses are usually nicer than public ones, and semiprivate courses tend to be nicer than municipal ones, there are important exceptions. I've seen military courses that rival resort clubs.

It's also a mistake to set your fees based on what the average is for your type of course in your area. One of the important facts I determine for clients is the number of rounds played in their area. If rounds are limited and the course needs to gain players, then those rounds have to be taken from existing play, which means you can't offer the same combination of price and value as everyone else and expect to gain play.

It can even be a mistake to think that you're better than your competition for any intangible reasons. I know a large and respected company known for its highend courses. It purchased a golf course in an area and renovated it to its exceptional standards. But the course failed because the market didn't need another high-end course. Despite its excellent reputation, the golfers didn't respond.

Similarly, but at the other end of the spectrum, municipal courses have been created to provide inexpensive entertain-

IT'S ALSO A MISTAKE TO

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FOR YOUR TYPE OF

COURSE IN YOUR AREA.

ment for the community, which generally means providing an inexpensive product. That's not always the case, however. For example, the commis-

sioners in Denver discovered their market would support high-end courses. Some of its municipal courses charge \$75 fees successfully. As expected, these courses look as good as private courses because the players pay for and expect that level of course conditioning. You have to let the market determine what you charge. To do this, you have to analyze and understand your local market.

A few years ago, the National Golf Foundation surveyed the Raleigh, N.C. market, which was supposed to be oversaturated for golf from a population standpoint. What the study found suggested the area could support another medium-level course, say in the \$30 to \$40 range. What this meant is that it would have been possible for a \$20 course to invest and move up to fit that medium-

level niche and be successful or for an unsuccessful \$40 to \$50 course to move down.

Critical to being able to properly position a golf course is that the superintendent should know the difference between \$20 golf, \$30 golf or \$40 golf because the ultimate business challenge is being able to match the target demand and market expectations. One aspect of this is that the superintendent cannot simply accept the budget he or she has. If the budget is inadequate, the superintendent must explain why market factors demand that more money is needed. At the same time, if a superintendent has too much budget, then he or she should give some of it back. Put another way, the superintendent's job is to match the necessary course conditions with the marketing goals, not do everything possible to the course.

I'm sure the thought of giving some of the budget back will make many readers smile and others laugh. But it's good business. If a superintendent can get the job done with a smaller budget, then the money saved will drop straight to the bottom line. The appreciation a superintendent should receive would be the same as

> if several of his or her employees came up with a great timesaving idea that would free one hour from each of their days, then ask the superintendent what

else they could do. Those employees would be the superintendents heroes.

When people ask me what marketing is about, I tell them the story about when the first disposable cigarette lighters came out – they were priced around 25 cents. The market viewed the lighters as cheap and unreliable, and they sat on store shelves and in warehouses. Then some marketing was conducted, and the lighters were reintroduced at \$1 each. They sold quickly because they were perceived as a quality product.

Marketing is meeting or exceeding expectations to the ability you can afford and the market demands. It's not about doing everything possible. It's simply the age-old, revenue-minus-cost-equals-profit equation. After all, the objective of marketing is profit. GCN



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

A twist on course plans

have been discussing with a few clubs developing something other than a master plan for them. I call it a theme book or a premaster plan. This is a new twist on course planning for me.

The idea is that you, as a superintendent, do many things in-house without going to the expense of using an architect. Now, I could, and probably should, spend the rest of this column debating the wisdom of that, but for the moment, I'll agree you probably don't need to call me or my brethren always to help you when you decide to stabilize a creek bank or plant a few trees.

Any change you make to your course is subject to criticism from just about anyone who plays the course, and in many cases, even from folks who simply drive by. And, you continually hear suggestions from well-meaning golfers who don't understand why you can't implement their great ideas. The clubs I've discussed this with realize it might be handy for their superintendents to have a preconceived guide to such changes, justifying them in the context of the overall theme of the club, their maintenance budget and construction options that fit both.

A complete master plan, with phasing and cost recommendations, addresses inhouse changes. But many master plans and/or renovations stem from a laundry list of specific problems noted by members, the committee or the superintendent. Then, clubs dive right into changes without looking at deeper, underlying issues. It's comparable to a freshman not wanting to start with basic 101-level courses and preferring to jump right into graduate-level courses.

While this preplanning process should be the start of any master plan, it can be almost as valuable, even if your consulting architect draws an example plan only, perhaps using one typical hole, or no plans at all. It's important to start at the beginning.

A golf course theme is often overlooked as a basic guide to design, but perhaps it's more important than most people realize. Courses can look like Augusta National or Pine Valley if the proper planning is implemented. Landscaping is an obvious example of emulating a course. If you want your course to have a refined

look, similar to Augusta National, then you might lean toward formal flowers and exotic trees for your landscaping. If you want the rugged look and feel of Pine Valley, native grasses and trees would be a better choice.

In these premaster plans, frank talk about budgeting is essential to setting your course. In one case, a club wanted a formal look. However, when surveying the budgets of top clubs in the area, we found its budget was about 80 percent of those top clubs, and its members weren't keen about major dues increases. I was surprised to see the top dozen courses in the area had \$1-million budgets, and the 13th had a maintenance budget of \$998,000.

For example, when you propose plantings—which are maintenance items above and beyond an essential maintenance budget of perhaps \$600,000— to carry out a formal look, it seems quite obvious the course should have fewer high-maintenance landscaped areas than the highest budgeted clubs. The logical conclusion is that if similar but higher-budgeted clubs have an acre of annual flowers, then your club should have no

more than 0.8 acre of annual flowers, and probably less, because flower maintenance is a higher percentage of the discretionary budget.

The preplan then would allocate the areas of highest impact for plantings, such as at the front entry, clubhouse, first and 10th tees and any multiple tees where the same flowers can be viewed twice. Then, if someone gets the idea that a new flower bed is perfect for the 14th tee, you have justification for saying no.

Using creek bank stabilization as another example, the options include leaving the bank as dirt, adding native vegetation or using a hard surface, such as gabion walls, cement bags or a formal retaining wall. A Pine Valley-themed course would presumably opt for native vegetation, assuming the strength of flooding doesn't dictate the hard surface, but a formal course probably needs a hard surface. The issue in that case would be looks versus cost. It might be that any work in criti-

cal-view areas receives a more expensive wall, and areas well hidden receive less expensive treatments.

This plan can go through a general and detailed discussion of every area of concern on your course - tees (size, shape and style, orientation, access and circulation), greens, bunkers (styles and type, whether to use fabric liner), fairway and fairway-tree-corridor width, grass types, ponds, cart paths, etc. to determine, in order, what best fits your theme, what best fits your budget and what your most practical options are. As with comparable budgets, it might be handy to include pictures of similar clubs and solutions they've found successful - especially with things such as using new grass types - as a guide to your improvements.

What's missing from these nontraditional documents is a phasing plan. Many golf course changes don't fit a schedule well. Natural conditions, such as freeze or flood, change priorities and budgets. What's added is an in-depth discussion of the deeper, underlying assumptions behind any recommendation for change presented in a binder.

Depending on how familiar your ar-

WHILE THIS PREPLANNING

PROCESS SHOULD BE THE

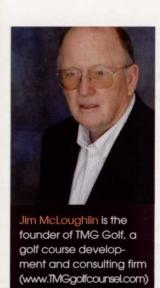
START OF ANY MASTER PLAN, IT CAN BE ALMOST

AS VALUABLE.

chitect is with your course, costs should be less than a complete master plan. Depending on how much he or she is planning to write about the subject,

your theme book might vary from a thin document to a coffee-table book located in the clubhouse for easy viewing. The cover of this book or binder should be of soft leather to connote an air of authority and to soften the blow of the superintendent's finger as he points and jabs at it when discussing changes with members!

Sharing the information about how you decide to maintain the course with your members via this type of document can provide valuable interaction with them. Most importantly, if you're in the market for architectural advice, tweaking the traditional master plan format to something like this premaster plan format might prove to be a better tool to keep renovations on a consistent path for your club or course.



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tive director of GCSAA.

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Win in a tight job market

n oversupply of talent is a waste of talent. The marketplace will bal ance the availability of people to jobs in due course, but during the time it takes this to happen, talent drifts and frustrations grow.

Tight employment makes it difficult for qualified school graduates to find jobs, advance once employed and almost impossible to peak in a career. As a result, talented professionals lose their edge, fail to grow, get complacent and become vulnerable in their jobs and at home.

Could there be a clearer indication of an industry suffering through these pains than when: more than 125 superintendents apply for every decent job that becomes available; a good superintendent can submit a solid resume to a dozen search committees and never get a call for an interview; assistants remain on jobs for six years instead of three; and the majority of superintendents are more fearful of losing their jobs than feeling secure in holding their jobs?

Welcome to the high-risk world of the golf course superintendent. At a time when there are too many turf management schools, more are coming on line every year. These schools are graduating more than 3,000 students annually into a national golf economy where there never has been more golf courses throughout the country facing forced sales and where there are 60 percent fewer new golf courses opening each year than at the recent turn of the century.

What should an aspiring superintendent

The correct answer can be stated simply but not translated easily into a robust career. First, get a complete education while in school and continue thereafter. Second, outprepare your competition when seeking a job. Third, plan ahead and know when to seek change in your career.

History shows the consistent weak link in the above scenario is how ineffectively superintendents (golf professionals and managers, as well) pursue jobs. In a profession that has made a limited commitment to teaching the art and science of seeking employment, is it any wonder golf course superintendents generally don't know how to separate themselves from the field when applying for jobs. They seek to be included within the job competition because somebody always will be selected by a process of elimination, not win the competition because they don't know how to win a job outright.

Typically, superintendents overload resumes in naive attempts to win jobs quickly, overlooking the far more imperative goal of getting interviewed. The resume should serve as a tease and not as a historical documentation of one's career.

Interviewing superintendents tend to spend too much time discussing past jobs and not enough time presenting a plan of action for the available job. Experienced interviewees learn to reverse this emphasis.

The difference between applying to win a job versus applying to compete for a job boils down to taking a creative initiative and endless preparation. Examples follow.

1. Taking the initiative begins with the cover letter. It's often simply thought of as a vehicle to introduce the resume, but the cover letter presents the unique opportunity to set up the entire application process.

No credible action plan can be presented to search committees without the candidate first gaining access to the good and bad details of current and past maintenance programs at a golf course. The cover letter is the means best suited for gaining access to this information.

For example, using appropriate professional language within a cover letter, a candidate would ask for access to (not possession of): copies of all recent USGA

Green Section reports; recent department financial statements and current-year budgets; program operational records; appropriate personnel files with job descriptions; computer system profiles; in-house print, audio and video educational programming; and the opportunity to walk the course with a member of the green committee and, if plausible, the outgoing superintendent.

Only with this information in hand can a candidate prepare a deft plan of action capable of getting the job.

2. Taking the initiative continues with the development of a personal career Web site - a new concept in the highly competitive job-seeking world.

Development guidelines and the formats needed to prepare a personal Web site are available on the Internet and through professional consultants at a cost that should

fall within a few hundred to a few thousand dollars. An enterprising superintendent should be able to design his or her own Web site at almost no cost.

The target audience for a personal-career Web site is the search committee the candidate approaches in each job application. The Web site should include text, digital photographs and graphics to profile the candidate's academic record, assistant positions held, past and current superintendent jobs, special projects and accomplishments the candidate has been involved with at each stop throughout his or her career.

Presenting a superintendent's or an assistant's career Web site address within a cover letter will immediately realize the following invaluable goals: (1) virtually guarantee the candidate an interview; (2) take the pressure off the resume by presenting an easily accessed, highly professional summary of the candidate's career; and (3) ease the interview process by pre-educating the search committee about the candidate's career before interview.

3. Taking the initiative concludes with the job description. Because most clubs and golf course operators have yet to incorporate job descriptions within their management struc-

ture, this translates into the candidate basically drafting a first-time job description or amending an existing job description when applying for a golf course su-

perintendent position.

TAKING THE INITIATIVE

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PERSONAL CAREER

WEB SITE.

Including a projected job description within an applicant's plan of action is the equivalent of turning the light on in a dark room. Search committees that generally lack a good summary understanding of the golf course superintendent positions they attempt to fill fall in love with candidates who can deliver such program-defining mission statements into their hands.

Rarely can a job candidate trump a competitive field. This possibility exists today every time a candidate commits to total preparation through the creative use of cover letters, individual Web sites, job descriptions and other well-established practices.

Prepare now and play to win. It's the only way to ensure solid times at bat in the current highly competitive job application market, First come, first served, GCN

Association profile

The GCSAA perspective

GCSAA IS REINVENTING ITSELF TO SERVE ITS MEMBERSHIP AND TO ADAPT TO THE NEW REALITY IN THE GOLF COURSE BUSINESS

ROGER STANLEY

GCN INTERVIEWS

STEVE MONA

CHIEF EXECUTIVE OFFICER

OF THE GOLF COURSE

SUPERINTENDENTS

ASSOCIATION

OF AMERICA

by What has been the biggest change in golf during your

Golf has become a business. Now, is that a bad thing? Not necessarily, because throughout the same period of time, golf has moved into the mainstream of society. For example, in the early 1970s when I was in high school and started playing, you were

ridiculed for being a golfer. Golf was a fringe, niche sport then. Today, it's estimated that more than 10 percent of the population plays golf. Golf has become a respected team sport at the high school and college levels. The evolution of golf as a business has been one factor in

bringing the game into the mainstream of

More golf courses and players encouraged invention and investment. Major advances in golf technology have been made in every aspect of the game - in clubs and balls, golf carts, irrigation systems, turfgrasses, mowers and plant protectants.

Of course, not all change to the game has been good, especially for those who revere the good old days. But golf is now big business, and it has to be viable. Wall Street is involved, and investors want a return on their investment. So, golf is now a tougher business.

What is the biggest challenge for the superintendent today?

That's a tough question because there are a number of challenges. Probably the one talked about the most is the demand for near-perfect playing conditions - what's been labeled the Augusta Syndrome. In such a competitive market, the customer is clearly in charge. So, golfers watch the Masters on TV and then decide they want their own course to look that good. If they are willing to pay for exceptional course quality, then the superintendent can probably invest in the necessary turfgrass, fertilization, mowers, grooming equipment and irrigation advancements to produce the desired result. But perfect course conditions

are often not possible for budget or agronomic reasons.

Does the GCSAA officially advocate more realistic playing conditions?

Our position on green speed or other course expectations isn't to say what should or should not be done but rather to communicate the facts and the costs. We advocate that each facility make decisions based on the economic and agronomic factors that are right for that particular course. In some locations, aiming for perfection is easier than in other locations. The role of a good superintendent is to tell the employer the costs in terms of plant stress, added labor and other inputs.

We also communicate to employers about the superintendent's side of the business. Our Leader Board newsletter goes to employers six times per year. The content aims to educate employers about the game from the golf course management side of the business. Addressing the unrealistic expectations issue, even from an education perspective, requires reaching the decision makers who ultimately must answer to the

What are other major challenges?

The environment is a significant challenge for superintendents and a huge issue for the industry. Any given superintendent might not be facing an environmental challenge presently, but the chances are that they will sometime during their career.

For the industry, the big issue is that 88 percent of the public does not play golf. The industry needs to educate and influence the huge court of public opinion about what we do, why we do it and the benefits of golf and golf courses.

What are the specific environmental issues?

We've identified five - water quality and availability; golf course siting, design and construction; integrated plant management; energy and waste management; and wildlife and habitat management.

To address these issues, the GCSAA, in February 2003, converted our charitable foundation into the Environmental Institute for Golf (EIFG). In July 2003, we identified five strategic issues and created a task force for each issue, including EIFG two task forces for water, one addressing availability and one quality.

With a generous \$93,000 donation from the Toro Foundation, made during the 2004 GCSAA Show, we are conducting an extensive literature search on each of the strategic issues. Our goal is to identify the knowledge gaps, obtain information to fill those gaps, and create a body of knowledge regarding golf and the environment. We will post this body of knowledge online where it will be available to developers, owners, architects, superintendents, builders, communities, legislators and

From a public policy perspective, the end game is to provide the information needed to enable appropriate and fair-minded legislation and regulation. From an industry angle, the goal is to create environmental best management practices and then incorporate them into our education programs. We plan to introduce a body of knowledge during the Golf Industry Show in February in Orlando.

Are you addressing broader environmental issues as well?

On pesticide issues, we cooperate with Responsible Industry for a Sound Environment (RISE), whose executive director, Allen James, serves on our environmental programs committee. And members of GCSAA staff serve on RISE committees. Pesticide issues are both national and local, with cities like San Francisco banning their use. When a community bans pesticides or severely restricts them, then the superintendent doesn't have the tools they need.

Water is also a national, regional and local issue. Water availability is always an issue in the West, but it can become an issue in any local community that's experiencing a drought. In the areas where water is abundant, the issue tends to be quality.



We also seek to educate the public about broad, green-industry issues through participation in the Evergreen Foundation.

Does the GCSAA lobby?

Yes, for issues that could impact golf. We retain a law firm in Washington, D.C., that monitors Congress and key federal agencies, such as the Environmental Protection Agency. They have helped us present the association's perspective on a number of environmental issues - the Food Quality Protection Act and the Americans with Disabilities Act.



What's the story behind the GCSAA Show becoming the Golf Industry Show in 2005?

The Golf Industry Show came out of discussions with the National Golf Course Owners Association (NGCOA). Combining the two shows means bringing their 1,000 show attendees together with our 20,000, and their 10,000 square feet of exhibit space with our 250,000 square feet. Both organizations will maintain separate education tracks at the Golf Industry Show

The result of all of this is that attendees will be given broader exposure to the game and the show will be stronger. The revenue sharing agreement ensures that we both profit proportionately to our contribution, and it protects the historic amount the owners have gained from their show.

What are the benefits for superintendents?

The Golf Industry Show will be bigger and stronger. It also creates opportunities for superintendents and owners to have an ongoing dialog and learn from one another. While there will not be joint education in 2005, over time you'll see a morphing of elements of the education programs together. One day you might not be able to tell which session you're in - an owner session or a superintendent session.

Both association boards will hold a joint meeting in Orlando. We've also invited owners to attend our seminars at the member rate, and they can sit in our educational sessions and forums at no cost. In 2006, we'll jointly develop specific education that appeals to both superintendents and owners.

What new educational efforts are under way?

We are getting involved in virtual education. Access to our education is limited because some superintendents can't get to our meetings or the annual show. We've

offered correspondence courses and online training to help fill this gap but six months ago launched live Web-cast training. It's an emerging technology that lets superintendents get the same classroom-type training that we give at regional seminars and at our annual conference and show. But they get this at their own offices. All they need is a computer. We've done four Web-cast programs already, and all have been well received. We're excited by this new way to serve our members' training needs.

What is the long-term vision for the show?

We have, and are talking to, other associations, including the architects, builders and managers associations. Ultimately, the Golf Industry Show could represent all the facets of the game from design through construction, maintenance and operations - everything up to the player level, which is handled at the PGA Show.

What is happening at the GCSAA chapter level?

There are now 103 affiliate chapters. Under our formal relationship all members of a local chapter are also members of GCSAA. An important organizational goal is to have all local chapters operate at a standard performance level with some standard competency. We offer local chapters a speaker's bureau, educational resources and regional seminars they can participate in. Some research is also done at the local chapter. We invest something like \$200,000 in research each year. One condition is that it must be cofunded at the local level and must meet other requirements.

Is the GCSAA membership elitist?

The perception is that we are skewed to the high-end clubs, but our membership data shows that we have across-the-board representation. On a percentage basis, we tend to have stronger representation of the traditional higher-end facilities than daily-fee courses. Perhaps this is because of tradition - the superintendent at many of these courses is simply expected to be a member, and the costs are covered. These clubs also have the necessary staff to make it easier for the superintendent to participate in meetings and trade shows. But our goal is to attract, serve and retain superintendents from every area of the game.

What is the most underutilized association resource?

Our career planning service. For no cost,

members can find out where they need to strengthen themselves and develop a personal road map to help them move along their intended career path. This is one service every member should want. Superintendents stay in one position for an average of seven years, and the association can help in career advancement. Educating members on all the available resources is a challenge, but any superintendent that looks into all that his or her association has to offer will be surprised at breadth and depth.

How good of a job is the GCSAA doing for members?

Most of our feedback comes from surveying members about a wide variety of programs and services, so we're being told how we're doing all the time. Overall, the best measure of how well we are doing is our superintendent member retention rate, which runs in the 90-percent to 92-percent range. We do know that superintendents leave the GCSAA for a number of reasons, and we are actively addressing the reasons why they leave.

Does the GCSAA have the necessary resources?

One of the great things I found when I joined the GCSAA 10.5 years ago was that the association was on solid ground financially. I credit the previous executives and boards for this. I would describe the GCSAA as well funded but not rich. We have the resources to accomplish some things that we really need to do, but we can't do everything. Our vision exceeds our resources, so resource allocation is a challenge. We constantly have to ask ourselves what is the highest and best possible use of our resources?

We're also making sure that we protect and grow our key assets. Creating the Golf Industry Show will help ensure that it grows and is successful.

What is your vision for the GCSAA?

I'd like to see the Golf Industry Show become as important as any show in the golf industry by 2008. I'd like to see the industry be viewed as an environmental leader by the public. I'd like to see the association engage its members to a greater degree. The true measure of association success is having members that can say that their association is well run and is doing great things for them. GCN

Steve Mona can be reached via e-mail at smona@gcsaa.org.



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Bob Marshall, Superintendent Skaneateles Country Club Skaneateles, New York



Course management

Running Your Show

WITH OWNERSHIP COMES THE FREEDOM TO MAKE DECISIONS BUT ALSO LONG HOURS AND HIGH RISK

by JOHN WALSH

Cleve Cleveland is the owner and superintendent of the Newark Valley (N.Y.) Golf Club. He says he's been improving the course since 1980.

ccording to the Golf Course Superin tendents Association of America, only two percent of its members have ownership in a golf course. High risk, money and long hours are the main reasons why more superintendents don't own golf courses. Superintendents who are also owners say the rewards must equal or supercede the risk as they take on additional operational responsibilities and consider long-term retirement plans.

Operational issues

Tim Stare, superintendent and part owner of Raymond Heights (Wis.) Golf Center, handles most aspects of the business. Stare gets help from his long-time friend and business partner, Bob Maibusch, certified superintendent of Hinsdale Golf Club in Clarendon Hills, Ill. Maibusch, the other owner of Raymond Heights Golf Center, helps Stare with the technical aspects of maintaining the nine-hole public course. Stare says the two are like split superintendents at the golf center.

The par-3 course also has a lighted driving range and an 18-hole miniature golf course.

"It's more of a family golf center," Stare says. "A lot of people that get into a par-3, mom-and-pop course don't know a whole a lot about golf course ownership.

"It's a challenge because we don't have the best equipment. We're still using gang mowers and walk-behinds. We struggle along, hand mowing and gang mowing to keep customers happy. The customer's aren't very savvy players and are not overly critical of the course."

The course is open seven months a year, and there's only three months to make significant money, Stare says.

"It's a struggle," he says. "Every day can be a surprise – one minute I'm in the bar pouring drinks talking with customers, and the next, I'm hopping in my pick up truck to pull a golf cart out of the mud."

Maibusch owns the course for fun. He also uses his ownership as a business plan, mainly as a retirement nest egg.

"It's a struggle right now," he says. "We may have to sell the course because we haven't been doing well. We've lost a lot of days to rain."

Maibusch isn't very involved in the operations at the Raymond Heights Golf Center because his priorities are with Hinsdale. Some Saturdays he drives up to Raymond Heights to help Stare.

"I'm not very involved with the day-to-day decisions," he says. "I have a partner that I've known my entire life. I trust him with my childrens' lives. If it wasn't for my partner, I wouldn't have pursued this."

Payment also can be different if a superintendent is also an owner. Jim Johnson, certified golf course superintendent of The Rail Golf Club in Springfield, Ill., draws one salary for both of his roles – superintendent and part owner. Johnson is one of several partners that have ownership in the club. There are cash payouts to the other partners once a year if the course is performing well. If the course isn't performing well, there could be a cash call, in which all the partners are required to supply cash to help the operations of the course because it's in the red, but that hasn't happened yet.

"We get a nice return," Johnson says.

The Rail is a public, 18-hole course designed by Robert Trent Jones.

Johnson says being an owner puts more pride in his job because he helped build the course. Also, Johnson's relationship changed tremendously with the customers because part of the role of an owner is to be in front of and talk to customers.



course management

"I get to meet a ton of people," he says. "Now I get to meet and greet, talk with them and see them twice a week. When you're out on the course, you don't get to hear what people say about it. Now I can hear the complaints and the compliments and can pass them on to the assistant superintendent, who is more in charge of the day-to-day operations of the course."

Johnson works more hours, too.

"When I was just the superintendent, I worked from 5:30 in the morning to about 3:00 or 4:00 in the afternoon," he says. "Now, as both part owner and superintendent, I work from 5:30 in the morning until 9:00 or 10:00 at night."

Control over spending also changes as an owner. Newark Valley (N.Y.) Golf Club, an 18-hole public course, used to be a bare-bones course until Cleve Cleveland, the course's certified superintendent and owner, put money into it, and improved it by doing things like

building his own irrigation system.

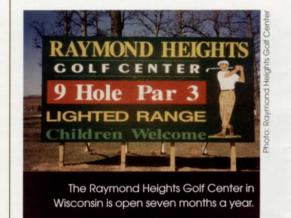
"I've been building the course since 1980," he says.

Improving and operating the course is a cost-benefit situation for Cleveland.

"A lot of the low-end public courses don't have the money to invest in their course, but it doesn't make sense for them to put more money into the course because the fees they charge wouldn't cover the expense of the upgrades," he says. "A lot of my competition doesn't have irrigated fairways or as good turf as I do, and they still attract customers.

"My budget figure is very flexible and many of my decision are based on whether or not I think the expenditure is going to make me money. My salary is what's left at the end of the year."

John Gehman, golf course superintendent of Butter Valley Golf Port in Bally, Pa., says one of the benefits of owning his own course is that he has complete control of the budget.



"I don't have to work for someone else," he says. "I get to make the choices. I'll spend money where there is no return, but I know it makes the place look better."

Last fall, a crew member left, and Gehman picked up the additional responsibilities. Looking back, he says he was spread too thin. Gehman's son Joshua is coming in next year to take over the superintendent's position and

Timing and money are keys to course ownership

superintendents who want to buy a golf course or driving range need timing and money on their side. Persistence also helps.

Tim Stare, golf course superintendent of Raymond Heights (Wis.) Golf Center, and his long-time friend and husiness partner Bob Mailly Isch. cer-

Center, and his long-time friend and business partner, Bob Maibusch, certified golf course superintendent of Hinsdale Golf Club in Clarendon Hills, Ill., have owned the golf center for 12 years.

Stare and Maibusch grew up together developing a love of the game of golf and wanted to get into the business of golf on a personal level.

An opportunity came about when Maibusch saw an ad in the Chicago Tribune about a golf course for sale.

"The price was something we couldn't ignore," Stare said. "It was \$250,000 for the whole place. We didn't have the cash, so we took out a five-year lease with an option to buy. After we took it over, it was making money, and we only had to take out a loan for a little more than \$200,000."

Maibusch, who has been a superintendent at Hinsdale, a private 18-hole golf course, for 22 years, always had an interest in owning a golf course.

"I looked at umpteen golf courses before I bought this one," he says. "The stars were aligned. My partner left a successful career at IBM to run the course."

The previous owners of the golf center weren't interested in operating a golf course and wanted to use the land for something else. When zoning prevented them from using the land as they wanted to, they let the course deteriorate.

"There were dandelions growing in the fairways and on the greens," Stare says. "We've rebuilt the reputation of the place. We won the Blue Chip Enterprise award from Mass Mutual Life in 1997."

Jim Johnson, certified golf course superintendent of The Rail Golf Club in Springfield, III., has been there since 1975. When the course was built in 1969, he worked there while he was in high school during the summers. In 1973, the back nine opened, the same time Johnson went to Penn State University. After a year at Penn State, he went back to the course, and then management hired him as the superintendent.

In 2000, the club offered Johnson the general manager position in addition to the superintendent position he had already.

In 2001, the course was sold, and the new owner, Bill Smith of Green Fairways, gave Johnson an opportunity to become part owner. Johnson became one of the owners after working for Smith for a year. Johnson says the partial ownership did take cash (he declines to say how much) and that there are several other owners of the course.

"Being an owner changes your perspective," he says. "You really look at the expense side of it and how you can save money here and there and still provide the same quality conditions."

Cleve Cleveland, certified golf course superintendent of Newark Valley

(N.Y.) Golf Club, an 18-hole public course, has been superintendent and owner since 1979. His parents built the course in 1958. He started working on the course at the age of 12 and bought the course from his parents in 1976.

"I've worked on this course my whole life," he says. "I was an owner who was forced to be a superintendent."

After high school, Cleveland went to college and majored in accounting because he wanted to work for the FBI. During his college tenure, he worked on the course.

"I then went to Houston to get experience in the accounting field, and my father fell ill," he says. "I got a call from my mother saying that I would have to come back or they would have to sell the course. So I came back."

The mom-and-pop operation, as Cleveland puts it, never had a superintendent other than his father, who was a farmer.

"We couldn't afford to hire a superintendent, so I took on all the roles." Cleveland became a certified golf course superintendent in 1995.

John Gehman, golf course superintendent of Butter Valley Golf Port in Bally, Pa., says his family built the course in 1969 and his dad opened it. The land had been in the family since 1792. Gehman started working on the course for his dad when he was 14. His folks retired in 1985.

"This is a family business," he says. "I have a tough time imagining how people go from one course to another. I know exactly where everything is on this course."

A plan was in place for Gehman and his wife to buy the course from his parents. First, they become half owners of the course, and then in 1985, when his parents retired, they became sole owners. He says that in about 10 years, when his son Joshua will be 40, he will get him involved in the ownership of the course.

Dale Reash, certified golf course superintendent of Countryside Country Club in Clearwater, Fla., has been there 12 years, has been a superintendent for 25 years and has been with Club Corp. for 27 years.

More than six years ago, Reash's wife was working for Club Corp. in the accounting department and wanted to leave the company. Around that time, Reash and his wife put together a group of people who wanted to buy a golf course, but that fell through, so he and his wife looked at other small businesses, such as motels and other real-estate ventures, to buy to have as a nest egg when he retires.

When looking for a business to buy, a business broker left Reash a message on his answering machine about a driving range that happened to be two miles away from his house. Reash and his wife have owned the range for six years.

"Operating a business is always a learning experience," he says. "There is always something that pops up unexpectedly. It's a lot of work." \subseteq CN

course management

will be able to concentrate more specifically on turf management than he did.

Another aspect of ownership is dealing with customers, and Gehman has help with that.

"I've got a couple of good people in the pro shop to schmooze customers," he says. "I don't get the same reaction from them that these guys do. I like sitting on the tractor and mowing. Customers have said they like the course because they see the owner working."

As an owner, Gehman says he can choose which customers he wants and which ones he doesn't.

"If I'm on the course and I have problems with golfers, I've got no problem telling them to take a hike because they don't know they're talking to the owner."

Some superintendents might not be able to own a golf course, but the next best thing could be a driving range. Dale Reash, certified golf course superintendent of Countryside Country Club in Clearwater, Fla., says

his wife primarily runs the driving range they own. During the first two years of ownership, Reash was involved actively with the range but couldn't continue that and do his job as superintendent of Countryside.

"We found good people to work the counter," he says. "It's done well enough where we can hire people. It's been good."

Reash and his wife employ 10 workers. One of them, a maintenance person, is full time, and the rest are part-time employees. The range, which is open every day of the week, also has three instructors and is located in a dense area where 70,000 cars drive by daily, according to Reash.

Down the road

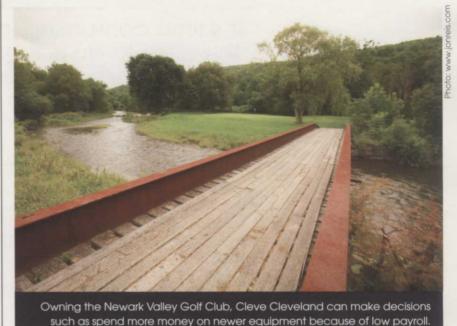
Superintendents' ownership plans for the long term vary. Stare's intention is to own Raymond Height Golf Center long term, until retirement.

"People come here to learn to golf," he says. "We're not looking to expand. We're taking things slowly. Perhaps we could sell it after we pay off the debt and make some money. We're in a quickly growing area between Chicago and Milwaukee. We have 36 acres. We could make more money selling it to someone who wants to build a business park. It seems like a pretty good retirement nest egg.'

Maibusch says it's unlikely he will own another course anytime soon.

"My plate is full right now," he says. "But I'll always entertain the thought of a good deal. I'm happy with my job and my partner. For us, it's kind of a labor of love. I'd like to think we're doing something to market the game. We market our course to kids and families. There are not a lot of courses like that. We're not going to get rich on the day-to-day operations. The investment comes with selling it, whenever that is. The return on investment isn't huge with this business model. Many people are not willing to make the 10- to 15-year commitment before the payoff."

Cleveland has no interest in owning or being part owner of another course because



one course is all he can handle.

"I'm looking to retire," he says. "I'm doing everything. I'm always scrambling to find employees to man the clubhouse. Having another course would be ridiculous.

"Down the road, I'll get to a point where physically I can't do the job and will need to hire people to help out. Eventually, I'll sell it or bring in a young superintendent who's willing to work like this."

Gehman says his intent is to sell the course to his son, but Gehman won't get top dollar for it because he doesn't want to put his son behind the eight ball.

Reash, who works for ClubCorp, says there have been opportunities to acquire ownership of golf courses on the West Coast and in Florida, but nothing that's attractive to him.

"I've also had calls for a driving range about two hours away, but you need to be real close to a small business like that," he says.

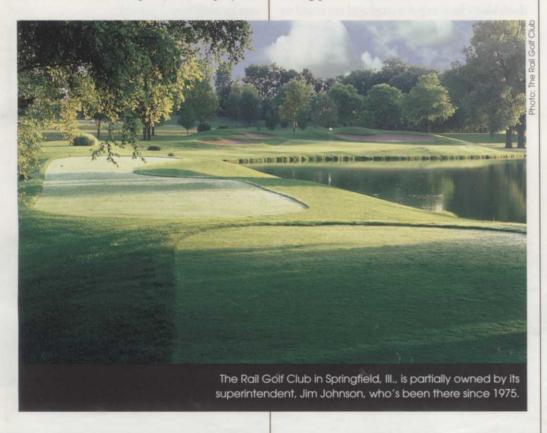
Recommendations

Superintendents who have ownership also have advice for other superintendents who might be thinking about ownership. Maibusch says every superintendent would love to have a piece of ownership, but not everyone is willing to jump through the hoops to get it.

"I looked at courses for more than 10 years before I found the right one," he says.

Superintendents who want to be part owners of high-end courses need deep pockets, according to Stare.

"Ownership could be fun if it's a municipal course that requires low maintenance," he says. "If you're doing it on the side, be open and honest with your main



"It's time consuming, and you have to have the drive to do it. It gives a person a lot of pride." — JIM JOHNSON

job and keep your priorities straight.

"Don't let it consume you. There's a balance between setting your own hours and working too much. You have to hire good people and trust them so you can spend time with your family."

If superintendents were to be owners, that would be their life, Johnson says.

"It's a tremendous amount of work," he says. Your family life would be shortened. It's time consuming, and you have to have



the drive to do it. It gives a person a lot of pride. I was fortunate to be in a position to do that. It was one of my goals, but I didn't think it would happen at The Rail."

Nobody's going to give ownership away, and superintendents will have to negotiate with the owner to become part owner, and that might include taking a pay cut, and many superintendent and owners are willing to do that, according to Maibusch.

"Superintendents who are owners are in one of two camps: They're like me and wear many hats or are part of a group in which a couple of guys have deep pockets, and in that case, you're still an employee," Cleveland says. "It's pretty hard for anything in between because of the cost.

"Very few superintendents are willing to take the risk of owning a golf course. When they weigh that against the salary they're earning now and the hours they work, they chicken out. I'd love to go to a 50-hour work week. That would be like a vacation to me."

Cleveland says for many superintendents ownership is a step below them because they are coming out of the top agronomy schools in the country and then work at prestigious golf courses.

"And for a superintendent to quit that and work at a low-end course for a piece of ownership, isn't worth it to them," he says.

For a superintendent to be an owner of a golf course, he has to make decisions about such things as green fees and tournaments, according to Cleveland.

"You're not in the background, and that scares many superintendents to death," he says. "Very few people are meant to be owners of businesses. It takes time, money, risk and personality. You can't be introverted,

you have to deal with the public and attracting people to your course. The public wants to be where they feel welcome. You have to be a salesman."

A common theme is one in which a group of ownership partners get a superintendent on board, Cleveland says.

"I teach a number of [Golf Course Superintendent Association of America] seminars and tell them the best way to go for ownership is a little nine-hole course that's family owned where the parents want to get out because the kids don't want to take the course over," he says. "You can buy a nine-hole course for between \$250,000 and \$800,000. The owner will be willing to hold on to the paper and mortgage."

Cleveland says owning a course is a lot of hard work and there's always a questionable return, but the benefits of owning a course are control over the product and not being as constrained with a budget.

"No one is second guessing me," he says.
"I'm willing to spend my own money on newer equipment because I don't have a high payroll and I'm not that good of a mechanic."

Reash says that by being a superintendent one gains knowledge of how a course is operated and that's the one of the basics for running a business.

"Superintendents are resourceful and have the basics to run a job," he says. "A lot of guys don't know how to get started and are afraid to take the risk. There are a lot of superintendents involved with sod farms and are small ownership partners of courses in Florida."

Because compensation for superintendents has improved throughout the years, superintendents who have ownership aren't necessarily doing it as a retirement plan, but because they want to get ahead and be self-supportive, according to Reash.

He says the financial rewards of being a part owner of a golf course outweigh those of owning a driving range because of the real-estate value and the revenue generated by an 18-hole course.

"A driving range is a small business," he says.

Reash says the important things he learned about business are to operate within a budget, understand the market and know what customers want.

"What you think is important might not be important to the customers," he says. "We've built a good base of loyal customers."

Cleveland predicts the industry will see more superintendent/owners depending on where the growth in the industry is.

"There is a lot of room for growth at the lower end of the market," he says.

Gehman's advice to superintendents who wish to own their own golf course is that they need to be willing to work hard and put in their time.

"You can't do it for ego or prestige – that won't work," he says. "A superintendent who wants to become an owner should do a careful analysis of the course. It's a tough racket right now. These places have to be marketed. Make sure you know what you are getting into." GCN



Being an owner, Cleve Cleveland has to make decisions about his course, such as green fees and tournaments, that he wouldn't make if he was just the superintendent.

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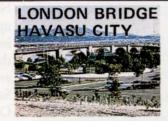
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USE READER SERVICE #26

Design case study

Salishan renewed

MAJOR RENOVATION BRINGS NEW LUSTER TO OREGON COURSE

alishan Golf Links, the course that once first showcased the golfing promise of Oregon's coastline, re-PHILLIPS opened following a major redesign by Jacobsen Hardy Golf Course Design. Featuring 18 new greens, an additional 400 yards and new views of the Pacific Ocean and Siletz Bay, Salishan, located in Gleneden Beach, Ore., has reclaimed its standing as

one of the Northwest's top golf resorts.

"The major changes needed at Salishan were to identify drainage of the entire course and make the greens playable and receptive," says Oregon native Peter Jacobsen, PGA Tour veteran and partner with Jim Hardy in Houston-based Jacobsen Hardy. "I feel we accomplished both of those goals, but we did a lot more than that.'

The Salishan layout was completely rebunkered, and one hole, the par-3 15th, was completely reimagined.

"The most dramatic change is the new No. 15," Jacobsen says. "Instead of a blind, uphill par 3, it's now a downhill par 3 playing directly toward the Pacific Ocean on the horizon. It's one of the exciting changes and improvements that we feel puts Salishan back on the map of tremendous Oregon golf courses."

AT A GLANCE:

Salishan Golf Links

www.salishan.com

Location: Gleneden Beach, Ore.

Course Type: Resort \$3 million Construction began: Aug. 18, 2003

Course opened: Nov. 15, 2003 (course opened

Memorial Day weekend, 2004)

6.470 Yardage: Number of bunkers:

Average green size: 5,000 square feet

Greens: 100-percent poa annua

Tees: bluegrass/rye mix Fairways: bluegrass/rye mix

Accent: native and beach grasses

134 from the back. Slopes:

> 130 from the middle, 128 from the forward

72.2. 70.4. 71.3 Ratinas: Professional: Mark Swift Director of Golf: Mark Swift

Superintendent: Ryan Bancroft

Architects: Jim Hardy and Rex VanHoose

Design Firm: Jacobsen Hardy Design Builder: Eagle View Golf

Complete renovation

After purchasing Salishan in 2003, Eugenebased owner Spring Capital Group embarked on a multi-million-dollar renovation of The Lodge at Salishan. This fall, Salishan's day spa will open. But most important to golfers, Spring Capital committed \$3 million to Jacobsen Hardy's course upgrade.

Opened in 1965, Salishan Golf Links pioneered the Oregon coast for resort golf. Bordered by the Pacific Ocean to the west and the saltwater Siletz Bay to the north, Salishan attracted golfers because of its scenic location. However, the golf course never took maximum advantage of its location, according to Jacobsen. The layout was short, 6,000 yards, and throughout time, the course developed major drainage problems.

One of our primary goals with the restoration of this course was to bring it into the 21st century," says Mark Swift, Salishan's director of golf. "Technology of course design and maintenance had passed us by, and we wanted to preserve Salishan's place as one of the finest golf courses in the Pacific Northwest."

Focus on the course

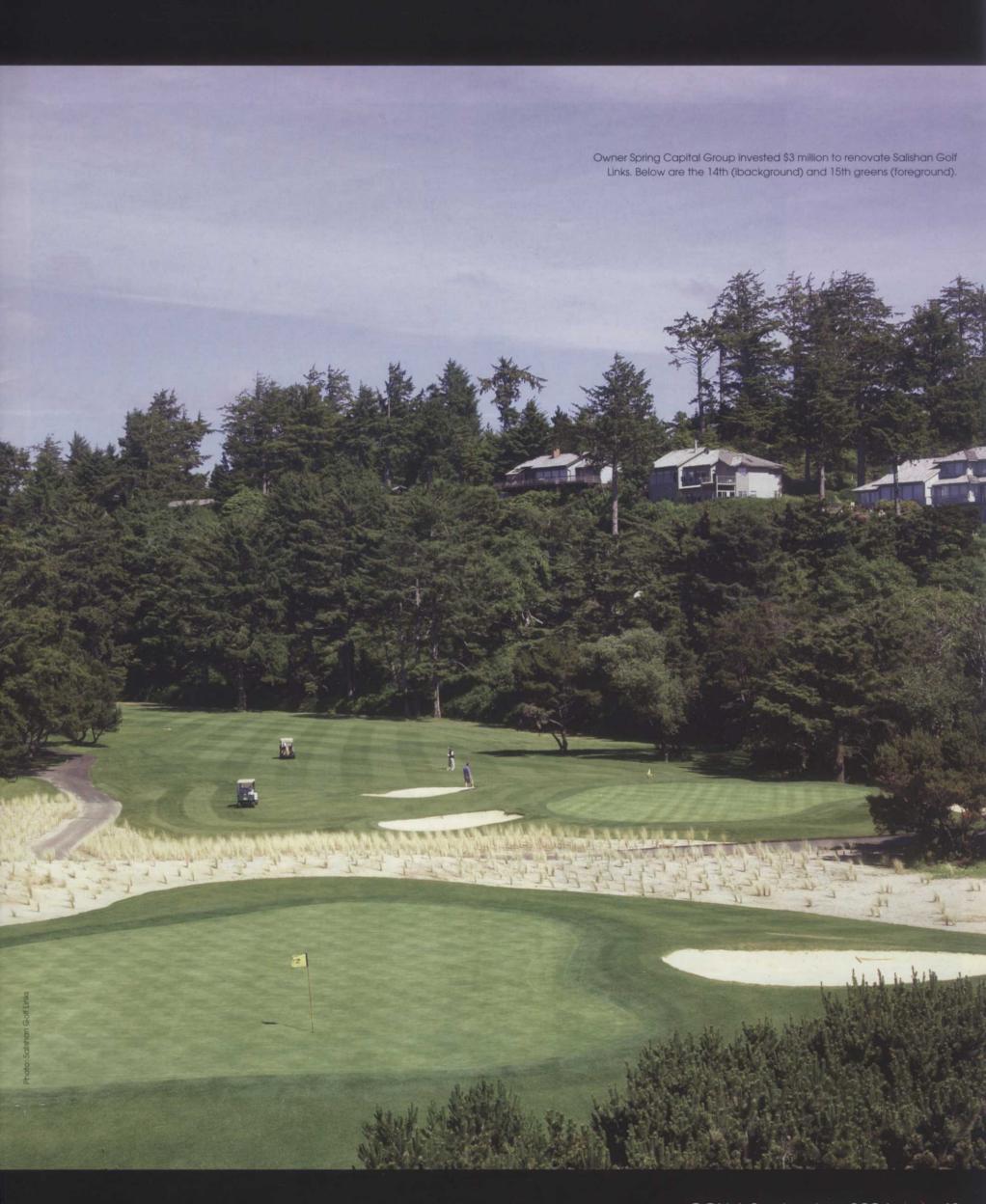
Salishan was a tired golf course and needed more than minor improvements, according to Rex VanHoose, Jacobsen Hardy's senior architect in charge of the Salishan project.

'We solved the drainage issues, but we also brought a coherent strategy to the entire design," VanHoose says. "Peter's always telling us to let the land be the hero, and that's what we did here. The holes relate much better to the terrain now. I never suspected that we could change things so dramatically on every hole.'

Salishan's new 10th hole illustrates the scope of Jacobsen Hardy's work. What had been a downhill, straightaway par 5 of 440 yards, with a perpetually soggy fairway, is now a dry, 457-yard double-dogleg thanks to strategic, fairway-pinching bunkers and a green that sits 30 yards to the right of the old one.

"It's a great improvement, but we also created a tremendous view of Siletz Bay behind the green," says VanHoose. "When we got there, the view was completely hidden by dense grouping of trees. You didn't even know the bay was there until you got to the 11th tee. Now you see it from 10th tee.

"The 10th and 11th (a 202-yard par-3 hole) both capitalize on the ambience of Siletz Bay in ways they never did before. The 11th green used to sit below a dike that runs along the bay's edge. We built up a new putting surface to the dike's elevation, so now you're looking out over the water across a horizon green. We also incorporated a sweeping dune feature behind the green, covered in beach grass, to provide a real sense of arrival on the links nine."





The green on the sixth hole at Salishan was recontoured. A bunker was set in on the back right of the green and another one was set in on the front left.

Working with Salishan superintendent Ryan Bancroft and course contractor Eagle View Golf of Spring, Texas, Jacobsen Hardy accentuated the beach grass/waste area look throughout the seaside back nine. The front nine, which plays inland through a thick forest of pine, also was the subject of major improvements in playability and design.

"On the front side, I'd say the most notable improvement came at No. 3," Hardy says. "We found a spot for a back tee, which added 50 yards to the third hole and revealed a beautiful escarpment feature. The hole

measures 416 yards now, and the drive plays right over a miniature gulch. The old hole was a shorter par 4 with a hidden creek at 230 yards. Resort guests were always in it. With this back tee, the creek is 300, so it's not such an issue."

"That was the story with a lot of holes at Salishan," VanHoose adds. "They were mediocre in terms of fairness and strategy, and now they're quite spectacular, with bolder bunkering. The 6th green, for example, used to be circled by eight little, sod-walled bunkers. Peter looked at them one day and said, 'Wow, that looks like my wife's vanity mirror.' So we took them out, recontoured the green, set in a bunker back right and another deep one front left. The hole has a strategic angle to it now – and it doesn't look like a vanity mirror."

Drainage solution

Jacobsen Hardy mitigated the site's longstanding drainage issues by implementing a new technique called Sand Slits, in which drain lines were trenched, and the excavated soil was conveyed directly to a holding area without ever touching the ground.

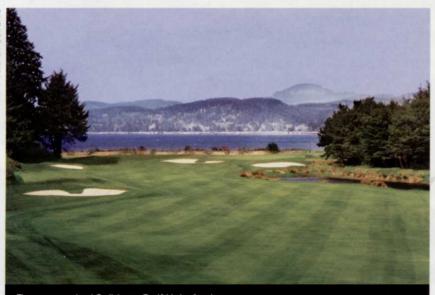
"The subcontractor on this job [Mt. Vernon, Wash.-based Greenshield Systems] has developed custom-built equipment to execute this procedure, which is faster and cleaner than any drainage-installation process we've seen," VanHoose says. "Basically,

it's a wheel-trencher attached to a Bobcat that features an integrated conveyer system that carries the dirt straight into a Ty-Crop – clean as can be. The dirt never hits the ground. The trench is cut perfectly. It's laser equipped to monitor depth. But here's the really neat part: With another attachment, Greenshield can reverse the process, conveying sand from a Ty-Crop into a portal that funnels sand into the trench while laying the pipe in the same motion."

Many contractors struggle to lay 2,000 feet a day using traditional methods, and that doesn't always include backfilling. With this system, 3,000 feet of drainage lines fully capped were laid a day, according to VanHoose.

The six trouble holes at Salishan – the first, 10th, 11th, 12th, 13th and 14th, where soggy conditions had prevented maintenance crews from mowing for weeks at a time – were built in the 1960s atop an old bog. A layer of peat was laid down, then a foot of sand, then another foot of clay-peat mixture, then more sand, then another layer of clay and peat.

"By using these layers, they had basically created the ideal conditions for a perched water table; it was a quagmire," VanHoose says. "The Sand Slits enabled us to look at a hole, determine the natural surface-drainage fall lines, then lay in the pipe perpendicular to the flow. We installed them in 15-



The renovated Salishan Golf Links features views of the Pacific Ocean and Siletz Bay.

design case study

foot spacings. They all meet at a trunk line that carries off and discharges the water. It's an incredible process that helped us meet a tight construction schedule. It cut down our soil disturbance obviously, but it also freed us from going back and re-establishing or improving the existing grade, which was maintained."

Greens improvement

The greens Jacobsen Hardy encountered prior to the renovation at Salishan were severely contoured and averaged 5,000 square feet in size. The green contours, designed in the 1960s when mowing heights ranged from 9/32 to 1/4 of an inch, were a continual source of frustration for resort guests. Presently, the poa annua putting surfaces are

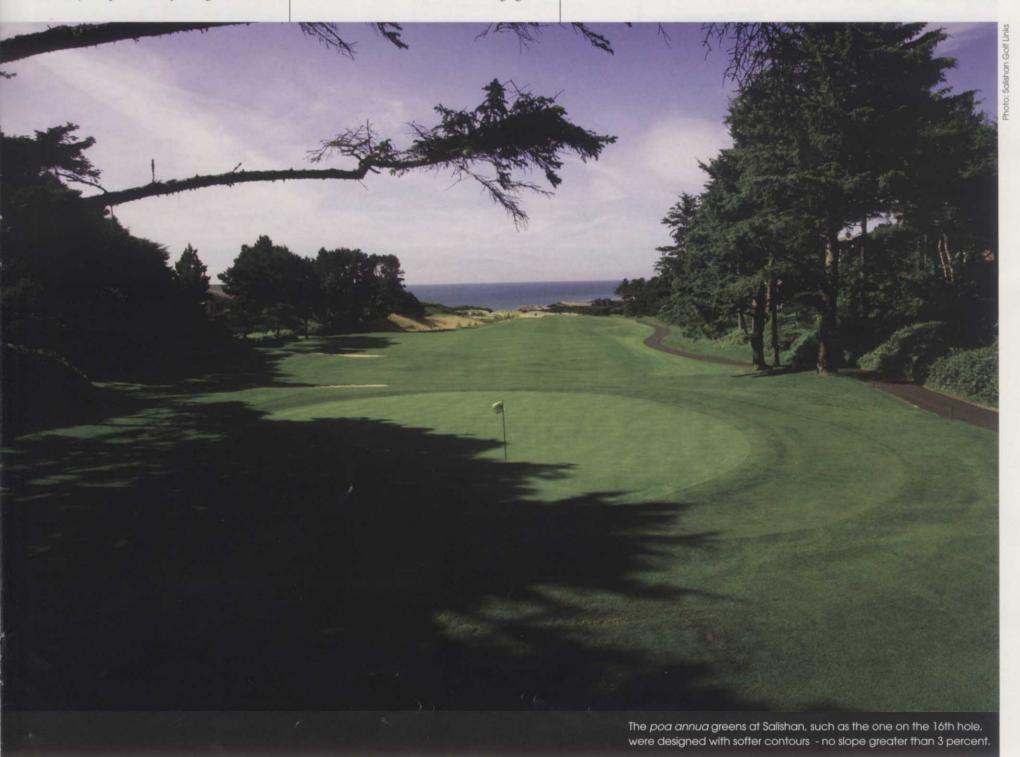
"One of our primary goals with the restoration of this course was to bring it into the 21st century." - MARK SWIFT

cut at 1/8 to 1/10 of an inch.

"The greens at Salishan had become unplayable and unfair, and pin placements were scarce," VanHoose says. "This is not to say that greens today can't be designed with significant movement. To make them fair, however, the size of the green must increase to allow for this movement and for multiple pin placements. Because we were salvaging the existing turf from the existing green surfaces (100 percent pure poa annua), we were confined to the same average green

size. In response to lower mowing heights, greater green speeds and 5,000-square-foot greens, we redesigned the putting surfaces with softer contours - no slope greater than 3 percent. The new greens offer subtle movement within each surface, creating a fair and playable test that's plenty challenging, too." GCN

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Course maintenance



Setting the stage for the following season

WINTER PREPARATION INVOLVES MUCH WORK DURING A SHORT TIME

by KEVIN J. ROSS, CGCS

concern for golf course superintendents in the West

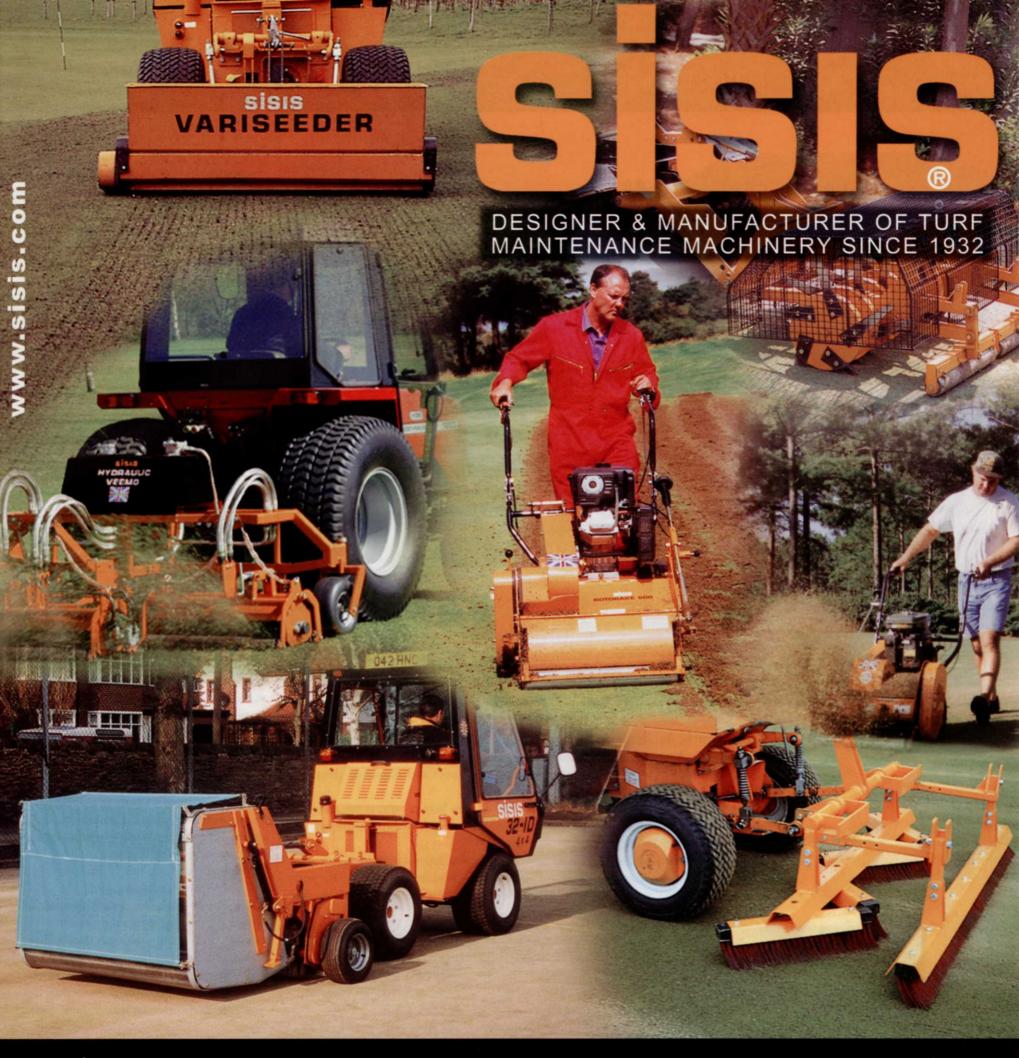
throughout the Northern regions of the country, the fall season may be the most important time of the year. Fall is when it's time to put the golf course to bed and protect the turfgrass from the ravages that come with winter. It's also the time of the year during which fall agronomics programs begin setting up the golf course for next year's season. And for a select few, it's a time to prepare their facility for winter activities, such as cross-country skiing and ice-skating.

For many superintendents, preventing winter injury to turfgrass areas ranks as the No. 1 concern as winter approaches. Matt Rostal, superintendent at Interlachen Country Club in Edina, Minn., says it's a critical time to get a lot of work accomplished in a short period of time. Rostal has been with the Interlachen Club for 13 years, the last four as its superintendent. With that experience, he puts snow mold controls, green covers and irrigation winterization at the top of his winter preparation list. At Interlachen, all greens are cov-

ered with turfgrass mats for winter protection. Rostal says the turfgrass covers offer desiccation protection and help prevent iceand suffocation-related damage.

"This past year, some area courses got hit hard with low-area winter kill on greens, while at Interlachen, we came through in excellent condition," he says. "I attribute this mostly to the turfgrass covers we use."

Prior to covering the greens, a mid-October fertilization consisting of 0.5 pounds of nitrogen per 1,000 square feet from an 8-2-10 organic material is applied along with



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course maintenance



snow mold controls. Aerification of greens is done during late August to allow for sufficient healing time.

Another task is leaf removal. Rostal estimates that about 2,000 trees are in play throughout the golf course, in addition to trees elsewhere on the 185-acre property. This keeps his staff busy with leaf duty alone throughout the fall. The leaves are blown off the fairways into the rough areas where

a mulching mower is used to grind them up, so Rostal doesn't have to worry about collecting leaves and disposing them off site.

"It's a nice way to add some nutrient value to the rough without fertilizer," he says.

Rostal also has to prepare other golf course amenities for the winter. This year, he will purchase a cross-country ski tracker to track trails on the golf course for use by the club's members. He marks and stakes all trails in the fall to make sure skiers are in areas of the course he prefers. He also floods seven clay tennis courts, turning them into ice rinks for hockey and pleasure skating. Both of these amenities require maintenance by his staff throughout the winter.

"Not too many golf course guys get to drive a Zamboni," he says.

Different prep

At the Nantucket Golf Club on the island of Nantucket in Massachusetts, fall preparation means it's project time.

"This is when all our golf course project work and grassland restoration is accomplished," says Mark Lucas, who's been superintendent at Nantucket since 2001.

Lucas ranks golf course improvements, drainage work such as vertidrain and waterwick, grassland restoration, soil testing and nutrient applications, irrigation winterization and greens preparation as his main focus heading into the fall.

As far as normal turfgrass preparation heading into the winter, Lucas differs from many courses. To begin with, Nantucket Golf Club doesn't treat for snow mold. Including his years as an assistant, Lucas has only seen snow mold (pink) once in seven years. He says a fungicide application isn't justified. He also doesn't normally apply any late-fall/dormant-type nitrogen fertilization. Environmental concerns also factor into Lucas' decision to not make these applications. The ground water at Nantucket Golf Club is monitored every three months. This monitoring is an ongoing process and is required as part of the original permit for construction of the golf course.

"We need to keep this in mind with all our programs," Lucas says

The greens at Nantucket are prepped for winter with heavy topdressing in early December. The main goal is to protect them from desiccation.

"With a windy and unpredictable wintertime, our main problem is protecting our greens from those desiccating winds," Lucas says.

Lucas doesn't use turf covers, although he has tried them.

"There is no possible way to keep the covers down in our winds," he says. "I've even seen hay bales be blown off the covers and roll down the fairway some 50 to 100 yards."

During the fall, grassland restoration in native areas is a major focus for some of Lucas' staff. He employs a full-time grassland specialist, who leads a transplanting effort. Each fall, a 1-acre area is planted, and



At the Interlachen Country Club In Edina, Minn., tennis courts are used for ice skating.



Some golf courses, such as Breckenridge Golf Club in Colorado, switch its focus from golf to cross-country skiing during the winter.

course maintenance

about 20,000 plants are planted within the acre each following year. Lucas estimates about 10 acres have been planted throughout the years with about 200,000 plants planted in these areas. Also, grassland restoration was part of the approval permits stemming from the initial construction of the course.

"Even if it was not part of the permitting, we would still go ahead with the plantings," he says. "It is such a good thing."

Some of the species that have been planted, such as New England Blazing Star and Saint Andrews Cross, are on Massachusetts' threatened and endangered list.

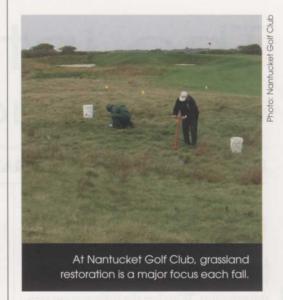
Time crunch

Far from Cape Cod at the Breckenridge Golf Club in Colorado, Derf Soller, superintendent of the 27-hole, Jack Nicklaus

Labor Day. When finished, these areas are treated for snow mold using PCNB. The fairways are fertilized with ammonium sulfate at 1 pound of nitrogen per 1,000 square feet, and the tees are fertilized similar to the greens. Along with these applications, Soller also applies an anti-desiccant to high areas that don't hold snow cover to protect from the drying winter winds and desiccation damage.

The most daunting task at Breckenridge is the winterization of the irrigation system. Working around Mother Nature with 27 holes of piping, the system winterization is a five-day challenge. Normally, Soller shoots for the first week of October to complete the winterization.

"Depending on what the weather looks like we might go a little earlier or a little later," he says. "When you deal with mother nature in the Rockies, anything can happen."



throughout September and October. A snowmobile is used in the beginning of the winter when the snow base is light. Then when a sufficient base accumulates, a snow cat is used on a regular basis. Soller equates maintaining ski trails to that of maintaining greens. Often, he hears the same type of comments: The track is too slow, too fast, too hard. It's an every day job, much maintaining greens.

Although fall preparation might vary from course to course and region to region, there's one commonality: There's a lot of work to accomplish in a short period of time. It also might be the time of year that dictates what the following year will bring. GCN

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

"There is no possible way to keep the covers down in our winds. I've seen hay bales be blown off the covers and roll down the fairway some 50 to 100 yards." - MARK LUCAS

municipal layout, has his own worries. High in the Colorado Rockies, Breckenridge can experience permanent snow cover as early as October. This leaves a short period of time to accomplish the much-needed winter preparation for the golf course.

"My main worry to prep for winter is, can I get everything wrapped up before winter sets in," Soller says.

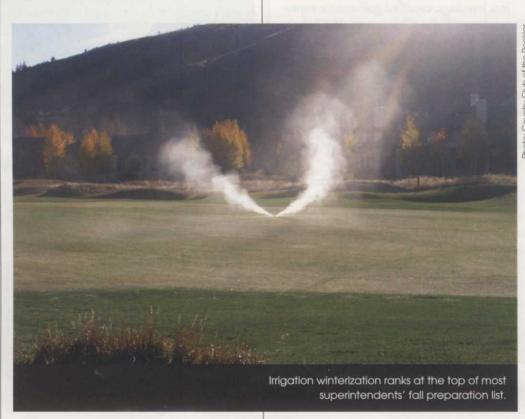
Soller's prioritized checklist heading into winter includes: greens dethatching, application of snow mold controls, irrigation system winterization, fall fertilization and anti-desiccant applications.

Greens preparation starts during the third week of September when the greens are linear aerified using a dethatcher. Soller uses 2-mm blades on the greens followed by heavy topdressing. He says the heavy topdressing helps protect the plant during the winter. He finishes his greens preparation with a PCNB (pentochloronitrobenzene) snow mold application and fertilization at a rate of 0.5 pounds of nitrogen per 1,000 square feet, along with a separate application of potassium.

"That about sums up the greens prep for fall," he says. "Then with our winters, you just hope for the best in the spring."

Other areas of the golf course, such as fairways and tees, are aerified shortly after

After the golf season is finished and the course is covered with snow, it's transformed into the Breckenridge Nordic Center for the winter. During the fall, a big effort is required from Soller's staff to ready the routings of the trails for skiers. Tree pruning, mowing native grass areas and installing culverts for stream crossings takes place



The Internet: an invaluable tool

USING THE WEB HELPS MAINTAIN COURSES MORE EFFICIENTLY

JOHN WALSH



quickly by using the Internet

olf course superintendents are using the Internet more and more. Yet, some superintendents use the Internet more than others, but they all use the Web for the same thing – to acquire information. Whether the information pertains to equipment, tools, purchasing, weather or solving turfgrass disease problems, the Internet helps superintendents do their jobs more efficiently and effectively.

Bill Prest, superintendent of Sweetbriar Golf Course in Avon Lake, Ohio, uses the Internet more frequently than he did before he arrived at Sweetbriar five years ago.

"Before I came to Sweetbriar, I didn't have a computer," he says.

Steve Neuliep, certified golf course superintendent at the Country Club of Asheville (N.C.) uses the Internet to find information that helps solve turfgrass problems, to locate a piece of equipment or to obtain general information.

"Better decisions can be made through finding information quickly on the Internet," Neuliep says. "The ability to access information more readily is huge. There is a wealth of information available."

Jon Jennings, certified golf course superintendent of the Chicago Golf Club in Wheaton, Ill., says the Internet has become very important to him. Jennings uses the Web to look up equipment, to buy parts, to communicate with the club's members and to check the weather. Jennings, who has two computers linked together in the maintenance facility, uses the Web several times a day.

"If I don't have a parts manual, I can look it up on Toro's or Jacobsen's Web site," he says. "I can accurately identify parts online or check a (material safety data) sheet or label."

Tom Schlick, certified golf course superintendent and director of golf course and resort grounds at Grande Lakes Orlando (Fla.), is in charge of 500 acres, including an 18-hole golf course. Schlick uses the Web more and more each month.

"It's faster to go on a search engine than to look something up in a book, unless it's certain types of fertilizer," he says. Schlick retrieves schematics on Rain Bird's site and prints them out and gives them to workers to change parts of the irrigation system. Also, mechanics on staff use the Web when repairing equipment.

"They can get exploded views of assemblies, print them out and post them up at their work station, and then when they're done, throw it out," Schlick says.

The grounds maintenance building at Grande Lakes Orlando has five computers for everyone to use. The computers aren't dedicated to one person.

"The crew leaders use it, but they didn't use it last year," Schlick says. "We give them the opportunity to take the initiative to look something up and ultimately advance their careers because they are more proactive. We push these guys pretty hard to figure it out on their own."

Schlick uses The Weather Channel's site and the National Oceanic and Atmospheric Administration's (NOAA) site, which features a more precise radar station that covers central Florida. He also uses plant search engines and horticultural, nursery and association links, including the Golf Course Superintendents Association of America's site. Other references, primarily for equipment, include Ben Meadows, A.M. Leonard, Lesco, DuPont, BWI and Turfcovers.com.

"I'm all over the board," Schlick says. "The Internet is a great resource that I can use in my office. I'm happy I have it."

Peter Galea, certified golf course superintendent of Pajaro Valley Golf Club in Royal Oaks, Calif., uses a Web site, www.bluebooktor.com, to look up the latest information about pesticide labels and material safety data sheets.

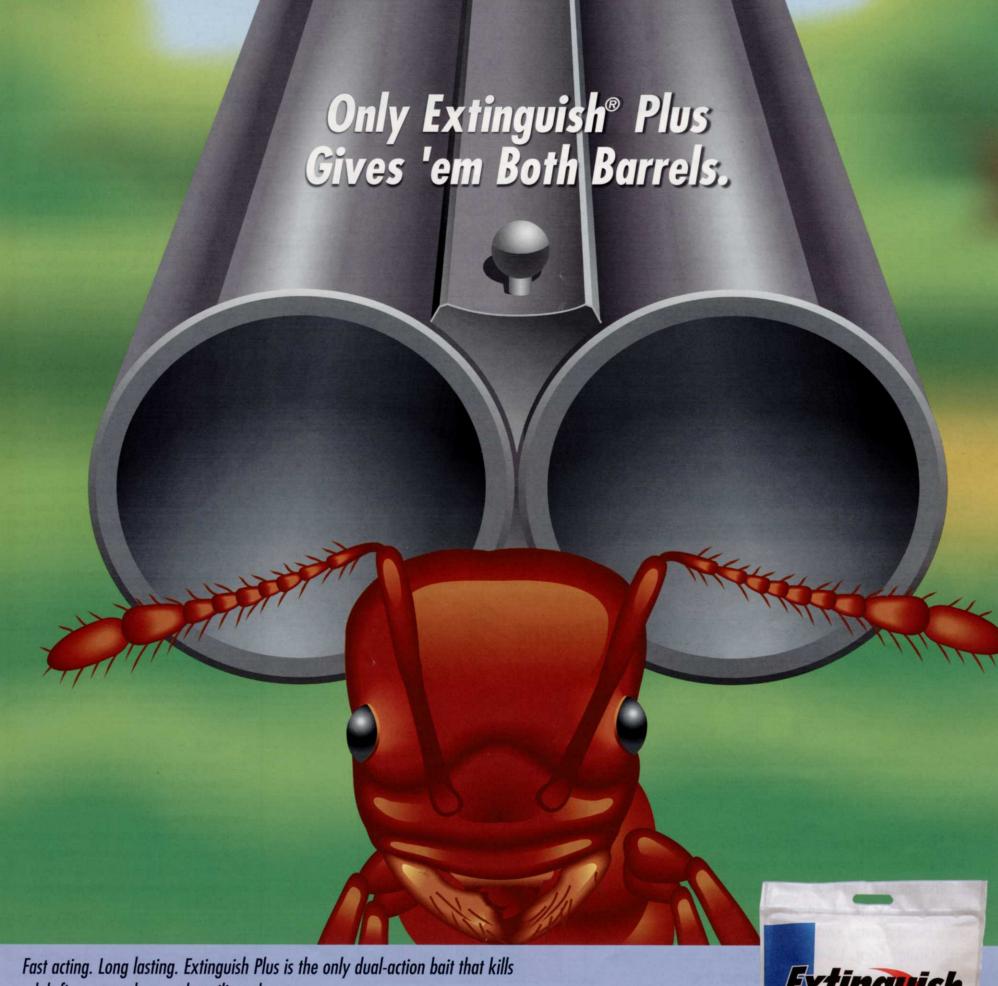
"I've never not found a pesticides on there," Galea says.

David Wrenn, golf course superintendent at the Quail Hollow Club in Charlotte, N.C., uses the Internet to gather information three or four times a week to check the weather, for maintenance, and to get parts and supplies. Wrenn admits he isn't as computer literate

Surfin' the Net

Here are some Web sites mentioned in the article above that golf course superintendents find useful:

COMPANY	WEB SITE	CATEGORY
AccuWeather.com	www.accuweather.com	Weather
A.M. Leonard	www.amleonard.com	Equipment
BenMeadows.com	www.benmeadows.com	Equipment
BWI	www.bwi.com	equipment
Golf Course Superintendents Association of America	www.gcsaa.com	Maintenance practices
Jacobsen	www.jacobsen.com	Equipment
John Deere	www.johndeere.com	Equipment
Lesco	www.lesco.com	Equipment
National Oceanic and Atmospheric Administration	www.noaa.gov	Weather
Rain Bird	www.rainbird.com	Equipment
Smith Turf & Irrigation Co.	www.smithturf.com	Equipment
Syngenta	www.syngenta.com	Pesticides
Textron	www.textron.com	Equipment
The Toro Co.	www.toro.com	Equipment
TurfNet.com	www.turfnet.com	Maintenance practices
United States Golf Association	www.usga.org	Maintenance practices
Vance Communication Corp.	www.bluebooktor.com	Pesticide labels, MSDS
The Weather Channel	www.weather.com	Weather
Xton	www.turfcovers.com	Equipment



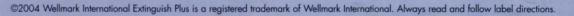
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as some and doesn't use the Internet as much as others.

"It's not vital," he says.

Web sites Wrenn and his staff use frequently include sites of the GCSAA, Smith Turf & Irrigation Co., Textron, The Toro Co. and The Weather Channel.

Chat rooms

Prest primarily uses two Web sites: the GCSAA's and TurfNet.com for turfgrass-maintenance issue.

"The chat rooms help with problems," he says. "I get an answer within a day from five or six superintendents who have dealt with the problem before."

Prest likes the chat rooms and messages boards found on the GCSAA site because he likes feedback from other superintendents.

"If I'm about to do a large project, I'll go on to the GCSAA site and put a question out to members and look for recommendations and/or potential problems with what I'm about to do," he says.

However, Prest says the GCSAA site isn't monitored as closely as the message board on TurfNet.

Occasionally, Prest will visit one of the major chemical companies' Web sites, such as Syngenta, to see what chemicals it has.

Sites Jennings frequents are Toro's, Jacobsen's, The Weather Channel's, the NOAA's, the GCSAA's, TurfNet.com and AccuWeather.com.

"I draw at least one good idea a week from what people are talking about on the messages boards, things like retrofitting and golf course maintenance aspects," he says about TurfNet's and the GCSAA's sites.

Galea says chatrooms are a time saver because he can just type in a query and a number of responses pop up, allowing him to find out what other superintendents have done with a similar problem.

Neuliep says he doesn't subscribe to TurfNet anymore because he can find turfgrass maintenance information on other sites free of charge.

F-mai

Jennings says the weekly update he sends to club members lets them know what's going on with the course, such as aerification or tournament preparation.

"It keeps them in the loop so they're not caught off guard," he says, acknowledging that his weekly e-mails prevent members from getting upset with course maintenance and confronting him about it.

Prest receives a weekly e-mail from Dr. Karl Danneberger, a turfgrass agronomist at Ohio State University, discussing disease and soil analysis, which helps him out with issues on his course. Also, Prest says Columbus usually experiences a change in the weather before the Cleveland area does, and through Danneberger's e-mails, he can keep tabs on what weather to expect.

Weather

Jennings checks The Weather Channel's and the NOAA's sites to monitor weather.

"We check the weather every morning and at the end of the day for planning purposes for such things as fungicide applications," he says.

Neuliep also checks The Weather Channel's



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Mike Sullivan of Hawthorne Hills Golf Club in Lima, Ohio had this experience:

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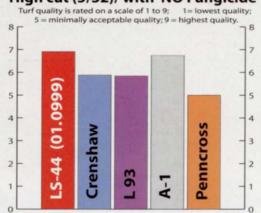
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site on a regular basis, which helps with spray applications and the bulk of the maintenance, so he knows when to do something and when not to.

Prest uses the Internet to check the weather twice a day.

"If I'm about to make a chemical applications, I will make sure it will have one or two hours to dry," he says. "If I see rain within two miles, I'll wait."

Purchasing

Schlick uses the Web to look for, and sometimes purchase, equipment. He visits sites of companies such as Toro, Textron, John Deere and Rain Bird regularly. He purchases equipment from A.M. Leonard through its Web site because the company makes it easy to do so. But when he buys turfgrass, it's a phone order.

"You have to have a Web site that works," he says. "You have to make it easy for me, or I won't consider purchasing online."

Jennings orders online with all of the companies that have that capability. The Internet helps Jennings save money on purchases. As an example, when he was looking to buy teak water coolers, he went online and checked several companies that sold them and ended up saving \$400 per cooler.

"I couldn't have done that without access to the Internet," he says.

Using the Internet has some quantitative and nonquantitative cost savings, according to Jennings. For example, he saved \$1,200 by not having to subscribe to the DNT weather system, which includes an antenna connected to a satellite and a screen to view weather patterns. Now he gets the weather from the Internet. He also saves time on the phone by ordering directly online.

Prest, unlike Jennings and Schlick, doesn't purchase equipment, tools or parts online. He says he prefers to work through local sales representatives.

"A guy out of town cannot come to my door if I have a problem," he says.

Galea says he doesn't do any purchasing online either.

"A while ago, I was using some turf shopping sites, but they didn't work so well, and I never got into it," he says.

Net effect

The Web will take on a larger role with training superintendents and their staffs about topics such as safety because it offers a two-way feedback, according to Jennings.

Schlick foresees the Internet becoming more integral in jobs related to golf course

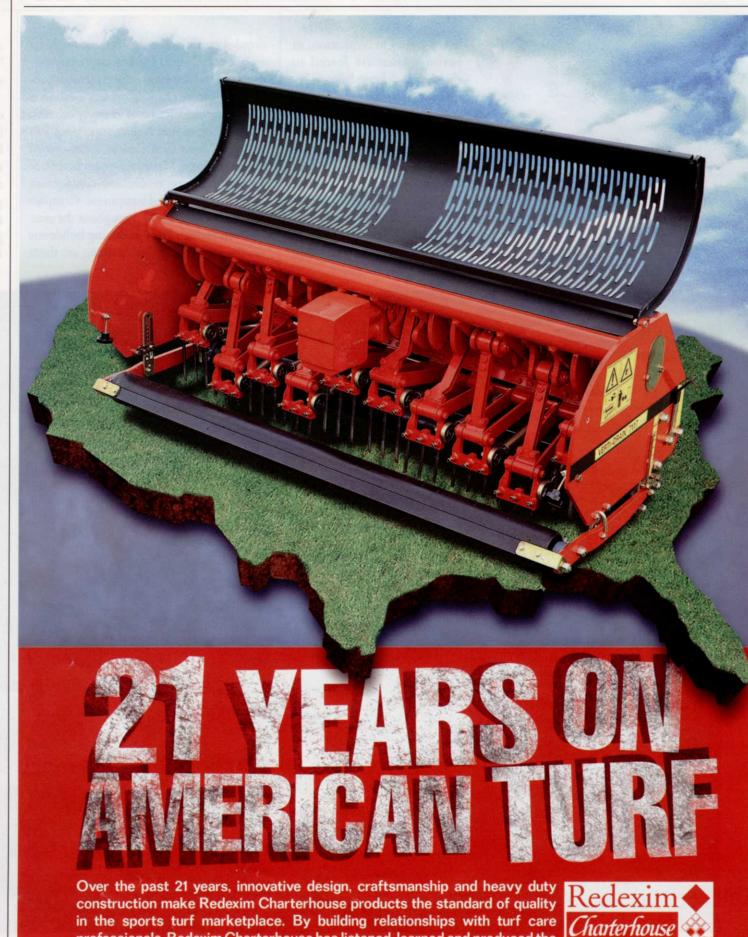
"I can see the day, before I retire, when there

will be an LCD screen in a mechanic's bay, and he'll pull everything up right there on the screen at his workbench," Schlick says. "That will be huge. There will be the same thing in the fertilizer building."

"It's a great reference tool," Jennings says. Prest says using the Internet makes him a better superintendent.

"If you are not on it, you should be because there is a whole host of information that you're missing out on," he says. GCN

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



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Course maintenance

Aerification:

a necessary evil of turfgrass management

SUPERINTENDENTS BALANCE HEALTHY TURF AND PLAYER DISRUPTION

by DEREK RICE hen it comes to aerification, su perintendents are forced to maintain a delicate balance between aerifying enough to keep turf healthy and free of disease and decay, and taking into account the disruption of play aerification causes, which is no small problem as far as players are concerned.

While superintendents aerify greens, tees and fairways, it's greens aerification that causes the most disruption and for which they receive the most grief.

To say greens aerification is among the most

dreaded operations at a golf course might be an understatement. Finding the happy medium between healthy turf and member convenience can be challenging, but aeration is a necessary evil because of its many benefits.

According to Ron Kuhns, superintendent at Sun Willows Golf Course, a city-owned facility in Pasco, Wash., the major benefit of aerification is to relieve soil compaction caused by players and equipment. Compaction can be substantial throughout the year.

"Even though I'm not driving bulldozers on these greens, people walking on them causes a lot of compaction," Kuhns says. "That's a lot of pressure per square inch under somebody's feet."

To maintain the low-cut (5/32 of an inch or lower) greens that players demand and to keep tees and fairways at their ideal playing heights, superintendents need to develop and maintain a deep, healthy root system. This means ensuring optimum levels of oxygen are getting to the root system to support the plant above ground. When greens become compacted, these air pockets are eliminated, leaving little air in the soil and making it harder



One benefit of aerification is to relieve soil compaction, which can be substantial throughout the year, caused by players and equipment.

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course maintenance



for water to penetrate, causing roots to suffocate and wither away. If that happens, then a superintendent will have a larger problem than inconveniencing players for a few days to aerify.

courses aerify greens twice a year.

Another benefit of aerification is it opens air pockets, improving the absorption of fertilizer and water to the root zone, says Peter McDonough, superintendent at The Keswick (Va.) Club.

"In the soil profile or sand profile, you either have air or water consuming space," McDonough says. "Obviously, air is much more preferable. If you get air circulation into the soil profile, you're going to have plants that breathe, and you get that water to penetrate instead of being on the surface."

The USGA Green Section recommends courses aerify greens twice a year, but some argue the more it's done, the healthier the turf will be. Unfortunately, that won't always wash with a membership or green committee.

Jeremy Stachowitz, superintendent at Wahconah Country Club in Dalton, Mass., core aerifies greens in early May and early September, which he combines with a vertidrain aeration in late October or early November. However, the course could use more aeration, he says. If Stachowitz had his way, he would probably do two aggressive core aerifications with half-inch tines and then use hollow-claw tines monthly, which would only take about a week to heal, he says.

"Even just doing the two per year and the vertidrain is not nearly enough for what this golf course needs, but it's about as much as my membership will tolerate," he says.

Like Stachowitz, most superintendents try to aerify the greens in the spring and fall, during off-peak times. Then they focus on tees and fairways whenever they can throughout the year, although not everyone can get away with less.

"Twice a year used to be standard years ago, but now there are quite a few golf courses that do it once," Kuhns says. "We tried doing it just once in the fall and not doing it in the spring. We ended up having some disease issues in the summer because we didn't open it up in the spring."

The healing process

The most common aerification practice is removing soil cores or plugs and then topdressing to fill the holes that are left, usually with sand and other amendments such as fertilizers that allow the soil to maintain its air space and improve water penetration.

The time it takes to punch the greens with an aerifier is only half the problem in players' eyes. The other problem is the holes that are left. The time it takes them to heal varies from course to course, but it averages two to twoand-a-half weeks, Stachowitz says.

"I get more complaints from the longevity they may take to heal and from the timing of the aerification," he says. "The September one comes at a peak time playingwise, but it's also the best time of the year to do the aerification. The members would rather see me do it in October or so, but by then, it's too late to get them to heal."

Tim O'Neill, superintendent at Country Club of Darien (Conn.), might alter his schedule this year to allow the greens to heal more quickly than last year, when he did his traditional fall greens aerification in conjunction with a drill-and-fill project.

"Those holes were evident in my greens for a long time," he says. "If we aerate the greens during the growing season, like in September, the holes will only be there for a couple of weeks. If we do it at what amounts to the end of the season, it takes six months to grow any grass at that time of year."

For this year's spring aeration, the holes were healed within two weeks, O'Neill says.

Fairways and tees

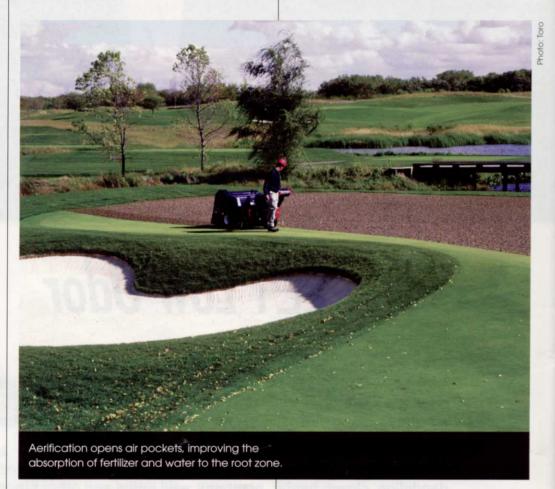
While aerifying greens causes the most disruption at a course, fairways are a close second, Kuhns says. Because Sun Willows is owned by the city, Kuhns doesn't have the luxury of having all the equipment the course needs inhouse. So his aerification schedule is based on what he can borrow from neighboring courses. In spring and fall, he borrows an aerifier and a couple of laborers to finish the greens in one day. For fairways, which are on less of a set schedule based on what's available for equipment, he uses a Renovair because of staffing limitations.

"I try to do fairways twice a year, but I try to do it when I can get the equipment," he says. "Doing fairways takes almost a week, and the cleanup can be a disaster."

Tees present the least amount of trouble with disruption in play, Kuhns says.

"Tees are easier for me," he says. "I do those three times a year in spring and fall and when it starts to get hot. Those are really easy to clean up because they aren't really big."

At Keswick, McDonough aerates fairways the week after Memorial Day and the last week





course maintenance



Superintendents have learned aerification is something that must be done, whether golfers like it or not.

in July. The timing is based on the optimal growing season for Bermudagrass, which is overseeded with rye. Tees are on the same schedule.

"We aerify again during the last week in July because that's when my soil temperature and the Bermudagrass is at its peak for growth," he says. "That's when you're really going to be able to give the roots and shoots plenty of time to develop."

In addition to the two aerifications, McDonough puts blades on his aerifier to slice the fairways four or five times a year, which is one of the most underrated practices around, he says.

O'Neill spreads out his tees aerification over a longer period of time because his club has multiple tees and he can aerate one without interrupting play.

"I don't feel that I have to get it done over two days," he says. "The holes that only have one tee I'll take care of on a Monday so I don't have to disrupt play."

Communication is key

Superintendents have differing ways to deal with the disruptions in play. It depends on the type of course they maintain. Kuhns closes his course for a day and brings in extra labor and equipment from neighboring courses.

"With all the extra help and machines, we can get all 18 greens done in one day," he says.

Sun Willows is owned by the city, but IRI Golf Group leases it. Because IRI also manages nearby Columbia Point Golf Club in Richland, Kuhns says his course can make special arrangements to accommodate its members who are displaced during aerification.

"When we aerify, we do a deal between the two. We let our members go over there, and when they punch, we let their members come here, at a greatly reduced rate," he says.

O'Neill has the added benefit of his club's Monday closure throughout the season. This allows him to run his aerifier over nine greens each on a Monday and Tuesday, but only disrupt play on the back nine on one Tuesday in the spring and one in September.

"Between a club that has the option to close on a Monday and one that doesn't, it is easier," he says. "I don't have to worry about any play on that day."

He does the same thing with fairways because he can't work around people when he's doing fairways. Even though O'Neill has an understanding membership, he says communication is key.

"Keeping the green committee and the grounds chairman and the members informed as to what's going on is important," he says. "It helps when they understand the process."

Because Keswick is a resort as well as a private club, McDonough says the pressure is on to maintain the course at optimum levels without any major disruption in play.

"You've got to give players nine holes, especially when you've got a hotel to support," he says. "When they do central reservation booking, they make sure that they know what's going on with aerification. We can make our membership aware of it quickly and constantly, but anyone who shows up as what we call a 'member for a day' is notified ahead of time, even if we have to call them at their house to let them know."

To ensure play continues during aerification, McDonough does nine holes at a time, spread out over two days. Unlike Kuhns, he aerates three times a year – the beginning of April and the end of September with half-inch tines and once in July with quarter-inch tines. The July aerification has helped alleviate problems with excess water at the course.

"With all the rain we've had since the drought problems a couple years ago, we've been waterlogged," McDonough says. "We find that doing it with those quarter tines just gets some air movement into the soil profile. That really helps immensely with a whole host of issues."

Another benefit of aerating with the quarter-inch tines on his Toro aerifier is that the holes are smaller and heal more quickly.

"With the quarter tine, you get small holes that, at this time of year, heal over rather quickly after a couple of hand mowings," he says. "Within a week, they're almost unnoticeable."

Plugs, plugs everywhere

Aerifying greens and fairways results in a lot of plugs on the turfgrass. So what do superintendents do with those plugs? In Stachowitz's case, he attaches a core harvester to his Toro Workman to collect them. From there, he uses them for just about anything – filling in fairway holes, creating a green nursery or anything else he can think of.

"Those things are like gold," he says. "You don't just throw them away."

Kuhns also reuses the cores, particularly those from tees.

"We run a core harvester over the area that picks up the plugs and shoots them into the bed of the Cushman," he says. "Then I just put them in a pile behind my shop, and when we're all done aerifying, I put them in bare areas. Each one is a mini yard, about 5/8- to 1/2-inch across. We'll spread them out in a bare area, roll them and fertilize them, and in about two weeks, it grows together, and you've got grass."

McDonough has a different take on cores. Being a private/resort club, his priority is keeping the unsightly piles off the premises. Rather than collect cores from fairways, McDonough uses a Lacy core pulverizer, which turns them into dust.

"We'll use the core pulverizer, then we drag in the afternoon, which almost acts like a topdressing. If you give it a nice watering and cut the fairways the next day, it's not noticeable," he says.

Any clumps that are left behind during wet conditions are then scooped up before the holes are reopened for play.

"There's never a problem with aerifying as long as you present the product open again as clean as possible," McDonough says.

Turfgrass management

Despite all the headaches that come with aerification, superintendents have learned that, for the most part, not doing it isn't an option. It's simply something that must be done, whether members like it or not.

"Everybody's situation is different, and I don't know if members always understand that," Stachowitz says. "In their minds, there's never a good time to do it, and in superintendents' minds, we never do enough."

Kuhns agrees the benefits far outweigh the drawbacks.

"It's a pain in the rear end, and I don't like doing it, but in the long run, my greens are healthier," he says. "It's just good turfgrass management."

Derek Rice is a freelance writer and editor from Portland, Maine. He can be reached at 207/541-1928.



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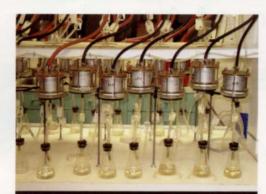
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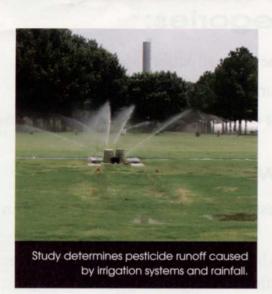
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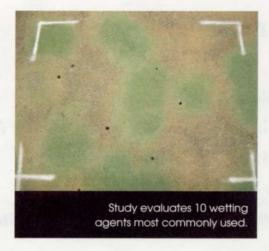
Jeff L. Nus, Ph.D., United States Golf Association, 2004 Turfgrass and Environmental Research Executive Summary

MORE INFORMATION usgatero.msu.edu



Soil tests emphasize long-term effects of root-zone mix .





Soil physical characterization of aging golf course greens

his three-year project is a focused extension of the previous University of Nebraska USGA-funded project: Grow-in and Cultural Impacts in USGA Putting Greens and their Microbial Communities. Emphasis is being placed on characterization of the long-term effects of root-zone mix and grow-in procedures on soil physical parameters.

Results to date indicate after the first year, grow-in procedure does not influence subsequent years. Data also indicates that as a green matures, soil infiltration isn't affected in the first two years of grow-in but decreases significantly in the third year. Water movement through the green profile continues to decrease significantly as

the green ages. Lateral shear strength, as measured by the turfgrass shear tester, follows a seasonal trend where spring data consistently has the highest shear strength, followed by a significant decrease in the summer, and then a slight rebound in the fall. Shear strength also appears to decrease as the green matures.

Characterization of three root-zone mixes at Arbor Links Golf Course near Nebraska City is new to the project last year. Results to date indicate the California single-tier green is harder and infiltration rates were higher than the USGA two-tier profile greens with organic matter. However, rooting strength was stronger on the USGA profile greens than the California greens.

Nutrient, pesticide runoff on fairways caused by rainfall

olf course fairways require intensive manage ment and often border lakes, ponds and streams. The potential for nutrient contamination of surface water from these sites is a subject of environmental concern. The objectives of this study by Oklahoma State University are to:

(1) measure the loss of nitrogen and potassium caused by natural rainfall from a common Bermudagrass fairway managed with normal fertilization and irrigation practices throughout a three-year period;

(2) determine if pesticide runoff caused by United-States-Environmental-Protection-Agency-accepted simulated rainfall differs from runoff caused by a turfgrass irrigation system;

(3) measure the potential loss of pesticides from a common Bermudagrass fairway when a significant rain event occurs within 24 hours after application. This project is part of a national turf runoff effort under the heading of "The Turf Umbrella."

The umbrella project includes researchers from at least three different universities in three regions of the country using three different grasses. The ultimate goal of this work is to assist in developing a national data set that can be used to calibrate pesticide runoff models specific to turfgrass environments and to help establish a standardized protocol for conducting turf runoff investigations.

On-site evaluation of products: golf course wetting agents

SGA is co-funding a project with the Golf Course Superintendents Association of America to evaluate selected wetting agents on golf course and research putting greens throughout the United States. Ten wetting agents most commonly used by superintendents and an untreated control are being evaluated at nine sites throughout the United States. All 10 products are being applied at the highest label rate for control/management of localized dry spot. The nine evaluation sites are:

(1) Bermudagrass research putting greens at the University of Florida-Fort Lauderdale and Texas A&M

University;

(2) Creeping bentgrass research putting greens at the University of Georgia, Cornell University, Michigan State University and Washington State University (Puyallup); and

(3) Creeping bentgrass practice greens at golf courses with the research being conducted by scientists from New Mexico State University, Cal State Polytechnic (Pomona) and the University of Missouri.

Data collected on a regular basis includes turf color, turf quality, phytoxicity and degree of soil hydrophobicity. GCN



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- · All activity is logged at the central control computer Rain Bird's Golf Division

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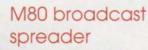


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- · Nozzles are enclosed for protection
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HD200 sprayer

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- Side access point gives operator easy access to tank
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- · Compatible with ProGator models

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Boomless flat spray nozzle

- XP BoomJet extra-wide model
- Design combines a polymer preorifice with an exit orifice that assures uniformity of product placement with drift reduction
- Can produce spray patterns as wide as 18.5 feet
- Available in polymer or stainless steel materials with VisiFlo colorcoded capacities ranging from 2 to 8 gpm
- Recommended pressure range is 20 to 60 psi

Spraying Systems Co.

Circle 214 on reader service form





Transformer power washer

- Attaches to wall mounted frame or portable frame
- 2.2 gpm at 1,100 psi
- 115-volt, 2-hp TEFC motor
- Adjustable chemical injector
- · Thermal relief valve
- · Liquid-filled pressure gauge
- · 30-foot, high-pressure hose
- Weighs about 100 pounds
- 36-inch spray gun/wand

Spray Master Technologies

Circle 216 on reader service form

products — weather monitoring

Lightning warning system

- L75 model is upgradeable from a prediction system with Thor PC included for computer viewing to a full programmable system capable of controlling an number of the company's horn systems
- Other L75 models include single horn-alert capabilities and equipment
- · Optional software can distribute real-time data from 10 to more than 100 users
- · Incorporates the latest circuitry and circuit board design in a small but reliable and affordable package

Thor Guard

Circle 244 on reader service form





Hobo soil monitoring station

- Multi-channel data logger measures and records soil moisture and temperature
- · Used where data needs to be collected in multiple locations and then analyzed on a PC
- Based on smart sensor technology: sensors are recognized by the station without complicated wiring, programming or calibration requirements
- Compact size (3.5 inches wide, 4.5 inches high, 2.1 inches in diameter)
- · Convenient data off-load options

Onset Computer Corp.

Circle 238 on reader service form

Strike Guard fiber-optic converter

- Converts standard RS-232 serial communications ports to bidirectional fiber-optic links
- · Replaces copper serial data lines with fiber-optic cable
- · Provides enhanced reliability over twisted-pair, short haul modems
- Instant termination no connectors, crimping, polishing or epoxy
- Complete autonomy from external power supplies Wxline

Circle 241 on reader service form



Turf Watch weather system

- · Measures rainfall and calculates the evapotranspiration rate
- Allows user to compute the net difference between rainfall and irrigation applied and amount of water lost to run-off
- · Allows multiple calculations of evapotranspiration for varying mowing heights and types of grasses
- · Allows user to set alarms for certain weather conditions
- · Stores historical data and time of weather
- · Helps reduce water and chemical use Weather Metrics

Circle 240 on reader service form





Rain Watch with central control software

- Version 4.0
- Helps superintendents maximize water management and conservation practices
- Can be installed with all Rain Bird central
- · Uses rain cans to measure rain as it falls
- · Can cancel or pause irrigation
- Determines the type of rain event the site experiences
- Safe for a hydraulic network Rain Bird Corp.

Circle 237 on reader service form

products — weather monitoring

Kelway pH and water moisture probe

- · Provides reliable pH readings from 3.5 to 8.0 and water moisture from 0 to 100 percent
- · Operates through natural electric charge generated from soil through the metal side plates on the probe
- Accurate to +/- 0.2 on pH and +/-10 percent on moisture
- · Includes instructions and carry case
- · Requires no chemicals, distilled water or outside power source
- Requires conditioning film to clean side plates

Circle 243 on reader service form



Hydra Probe for soil measurement

- · Provides information about soil-moisture content, salinity and temperature
- · Helps to optimize watering and fertilization
- · Permanently placed underground below the root zone
- Measures electrical response of soil types by two parameters: dielectric constant and conductivity
- Dielectric constant is most indicative of water content; conductivity is dependent on soil salinity.
- · A thermistor determines soil temperature

Stevens Water Monitoring Systems

Circle 239 on reader service form

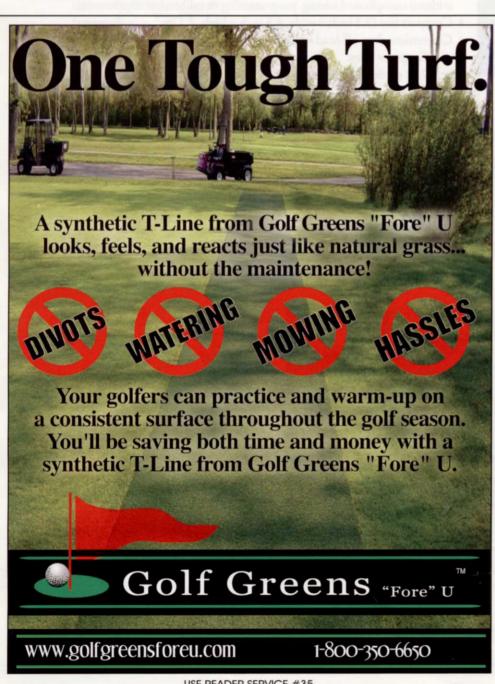


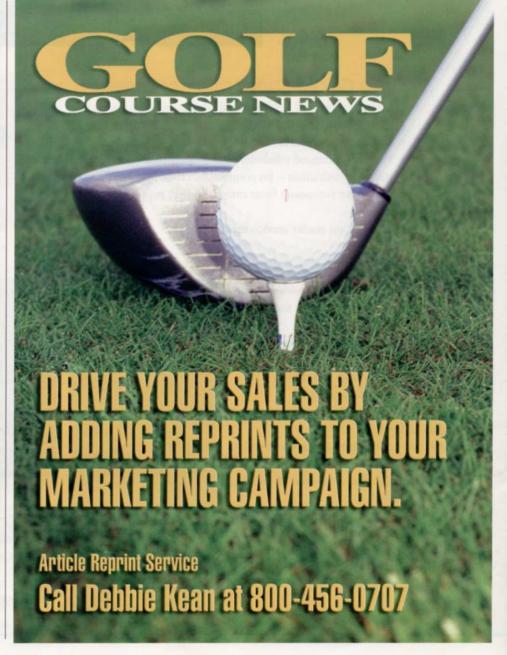


WatchDog 800 weather station

- · Ideal where multiple sensor measurements are required for temperature, soil moisture or rainfall data
- Can be customized by choosing as many as eight plugin sensors, including option for one rainfall sensor
- Features a built-in data logger that stores measurements until user transfers data to PC
- · Measurement intervals of one, 10, 15, 30, 60 or 120
- · User can add as many as four plug-in sensors Spectrum Technologies

Circle 242 on reader service form





products — topdressers/seeders

Easy spread topdresser

- · New hydraulic-powered system
- · Self loading
- · Available in two sizes: 52-inch and 63-inch working widths
- Designed to be loaded, driven to the site and used without the operator leaving the seat
- · Electric switch engages the hydraulically powered distribution drum
- · Variable-control valve sets the rotational speed of the drum
- · Spreading thickness is independent of tractor and can be varied from a light dusting to 1/2 inch

Redexim Charterhouse

Circle 232 on reader service form





Truck-mount topdresser

- · WideSpin 1530 model
- · Can be attached to John Deere Pro Gator and Toro Workman utility vehicles
- · Features a 19-cubic-foot hopper capacity with a longer, wider opening for easier loading of materials
- · Mounting brackets and connectors are used to connect to a utility vehicle
- · Can topdress as light as a fertilizer spreader and as wide as 30 feet, allowing to topdress 18 holes as quick as 90 minutes
- Can uniformly apply 1/4 inch or more of topdressing as wide as 15 feet

Circle 229 on reader service form

Broadcast topdresser

- · ProPass 180 low-impact model
- Has a ground pressure rating of 5.6 pounds psi loaded to 3 pounds
- · Load by volume is 18 cubic feet struck, 21 cubic feet heaped
- · Load by capacity as much as 2,200 pounds
- Hydraulic requirements are 6 gallons per minute at 2,000 psi
- · Attachment mounting system is quick release; no tools required
- Spread width is 15- to 35-feet wide
- Spread depth is from an ultra light dusting to 1/4-inch deep
- Tailgate opening is adjustable from 1/2 to 3 inches Ty-Crop Mfg.

Circle 230 on reader service form



Hydro seeder

- · HS-100-P model
- · A 5.5-hp Honda engine and 2-inch-by-2inch pump provides fast mixing
- · Ideal for repairing wear along cart paths and seeding new areas
- · Can be pulled by a tractor, ATV or utility vehicle
- · 100-gallon skid type
- Seeds 1,300 square feet per load Turbo Technologies

Circle 231 on reader service form





T75 HydroSeeder

- · Fully loaded weight of less than 10,000 gvw
- 700-gallon tank covering 8,700 to 10,500 square feet per load
- · Spray distances as far as 150 feet from the discharge gun
- · Hydraulically controlled paddle agitator and liquid recirculation
- · Agitator controls at each end of the tank for operator convenience
- · Large toolbox in the hitch for storing hoses and nozzles
- Centrifugal pump driven by an in-line common shaft clutch eliminates high maintenance belts and couplings and maximizes horsepower efficiency

Finn Corp.

Circle 233 on reader service form

products — topdressers/seeders

GT-100 topdresser

- · Gate is fully adjustable
- · 20-inch-wide conveyor and spinners work together to create a precise spread depth and pattern from a 23cubic-foot capacity hopper
- · Vehicle-mount control system allows user to make adjustments to the spread pattern without stopping or getting off the vehicle
- Dual spinners adjust the spread pattern from 15 feet to 30 feet; tilts 15 degrees up or down
- · Metering gate manually adjusts from 0 to 7 inches
- · Powered by a 9-hp engine
- · Working speed of 4 and 9 mph Pequea Machine

Circle 234 on reader service form





Flexispread topdresser

- · 5-feet spreading width; 6-feet working
- Can be tractor mounted or trailed
- Features wide, low ground pressure tires forward of the spreader
- · 105-gallon capacity
- · Tractor hydraulic power source
- · Infinite variable application rates
- · Application rate is controlled by a hydraulic flow control valve Trilo BV

Circle 236 on reader service form



- · Capacity of 2 cubic yards level, 2.38 cubic yards heaped
- · Features a trackless, 18-inch PVC belt
- · Spreading application is adjustable from extremely fine to very heavy
- · Can spread 12- to 40-feet wide
- · Electric over hydraulic machine controls belt and spinner speed from the vehicle-mounted control panel
- · Manual hydraulic machine features valves on the side of the machine to control the belt and spinner speed

Dakota Peat & Equipment

Circle 235 on reader service form



Slicer/seeder

- · 355/2000 model
- Operates in a 25-inch radius, allowing user to work around trees and flowerbeds
- Performs on inclines as steep as 40 degrees
- Powered by 11-hp Briggs & Stratton engine
- Can seed 18,000 square feet per hour
- · Plants rows on 2-inch centers
- Slicer depth is adjustable as deep as 2.5 inches
- · Machine is 35-inches wide
- · Blades are 11-gauge steel, 14 gauge is optional

Circle 228 on reader service form





Turf Tiger topdresser

- · Applies various topdressing and bulk materials even when material is wet
- · Provides flexibility for scheduling and working around variable weather and material moisture conditions
- · Applies sand/peat topdressing, compost, topsoil mixtures, soil amendments and other bulk materials
- Spinner attachment applies a precise pattern of sand/peat topdressing 35 feet wide.
- 7,500 pound capacity; tires exert 14 pounds per square inch of ground pressure
- · Available with Saber Tooth attachment
- Spreading pattern ranges from 10- to 16-feet wide Millcreek Mfg. Co.

Circle 246 on reader service form

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Educational golf program



helps shape, benefit youths

he National School Golf Program (NSGP), which is piloted under Golf 20/20, became an initiative of The First Tee. The NSGP was created to introduce the basic skills, etiquette and play of golf to elementary school children. The focus is to bring the lifetime benefits and values of the game to youths throughout America.

Coinciding with the NSGP, Snag Golf, a provider of introductory golf equipment, is a new member of The First Tee's Premier Partners. As part of the relationship, The First Tee is a distributor of Snag First Touch equipment.

"The arrangement with Snag will provide The First Tee with the flexibility of managing product inventory and expediting the distribution of equipment to schools associated with the National School Golf Program as well as The First Tee Chapters," says Joe Louis Barrow Jr., executive director of The First Tee.

The NSGP trains physical educators to introduce basic golf skills to children as part of their yearly program. The curriculum is based on national physical education standards and emphasizes character education through an introduction to The First Tee's core values.

"The NSGP is structured to present a quality, school golf curriculum that develops competency, understanding and progression through movement and physical skills," says Benna Cawthorn, director of the NSGP. "Through this program, children as young as five will be exposed to the motor patterns associated with golf, along with the inherent values of the game."

During the 2003-2004 school year, the NSGP was piloted in 130 elementary schools in eight communities and reached more than 50,000 children. The initial feedback from physical educators, principals, parents and the students has been positive. During 2004 and 2005, the program will be implemented in more than 300 schools throughout the country. A plan is in place to expand the program beyond that

Snag golf equipment was used throughout the pilot season and has been a preferred supplier to The First Tee for several years. The equipment is designed to be developmentally appropriate for students and to accommodate constricted areas.

The First Tee, an initiative of the World Golf Foundation, has opened 154 golf-learning facilities since its inception in 1997. It also has introduced golf to more than 300,000 participants since 2000. The focus is to give young people an opportunity to develop lifeenhancing values such as honesty, integrity and sportsmanship through golf and character education.

Above are pictures of kids participating in the NSGP. GCN



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