



# The Florida Green

Summer 2002



Number 10, Preserve Course  
Quail West G&CC, Naples  
Photo by Daniel Zelazek



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# The Florida Green

**SUMMER 2002**

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## CALL FOR ARTICLES

Members are encouraged to submit items to the Florida Green. Contact Joel D. Jackson, Editor for more information. Phone or Fax: 407-248-1971. Email: flgm@aol.com. All slides and photographs should include identification of persons in the picture and the name of the photographer.

**Hands on Topics:** Share your best practices and tips for these upcoming topics. Photographs or slides are encouraged.

*Fall 2002* – The Role and Responsibilities of the Equipment Manager

*Winter 2003* – Insect Control Programs

**Spotlight:** People and events making new in Florida. From award winners to chapter tournaments and other accomplishments. Send in your story.

**Superintendents Journal:** Personal observations or experiences related to any phase of the turf management profession including balancing family life with work.

**Professional Development:** General management topics beyond turf. Examples: Education, training, facilities operations, personnel, computers, etc.

**Industry News:** News items of interest to Florida superintendents from allied associations in the turf/horticulture industry.

**Opinion:** Exactly what it means. Article voicing your point of view on any topic concerning Florida superintendents.

**Research:** A section reserved primarily for university and technical authors to report on research results within the industry. Also reports of practical on-course testing.

**Rub of the Green:** Articles and anecdotes with a humorous twist.

**Stewardship:** Superintendents are invited to submit articles and ideas about environmental issues and initiatives at their courses.

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As I pen my last Presidents Message and reflect on this past year, I can say without a shadow of a doubt that I have thoroughly enjoyed the opportunity to serve

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each and every one of you. The sense of pride I wrote of in my first message is as strong now as it was then. To have had the chance to lead this association will be something that I will appreciate for years to come. I believe the most endearing aspect of our profession is you, my fellow superintendents and assistants. When you have the opportunity as I did to work closely with your peers from around the state and to

**PRESIDENT'S MESSAGE**



*Geoff Coggan, CGCS, MG*

have had the support of two very informed and loyal employees like Joel and Marie it's certainly all been worthwhile.

The one goal I did set for myself was to try to visit every chapter, and I am confident that by the time you read this, I will have visited you all at least once. I was not trying to set a precedent for my successors, far from it; I was just lucky enough to be in a position that allowed

me to do this. However in talking to Vice President David Court, CGCS, and Secretary/Treasurer Greg Pheneger they too would like to visit other chapters during their terms as their schedules allow.

My time in office was made easier and more enjoyable thanks to the support I received from our board members: Darren Davis for his guidance and for his tutelage on Roberts Rules of Order; Vice President David Court, CGCS, who will be a more-than-worthy successor. His commitment to this association is second to none and he will lead us well; Greg Pheneger,

who has been instrumental in developing a five-year financial projection plan for the association recently, and has demonstrated his mastery of the Power Point presentation software.

The committees, some of which have more active roles than others, have all played their parts and I have appreciated all the committee chairs' involvement and input. I would like to recognize the work of two committee chairs in particular: Craig Weyandt (Research Committee) and Joe Pantaleo (Membership). Thanks to their efforts we had a new research proposal funded and kicked off a new membership campaign that we hope will continue to increase - if not surpass - the positive gain in members made this past year.

Joel and Marie continue to work diligently on our behalf and have always been there whenever I have needed something; particular credit goes to Joel who has had the task of editing my messages from Old English to the more understandable version you get to read. A gentleman we all should be thanking - I not the least - is Tim Hiers, CGCS. Tim and his family just recently took time out of their family vacation to drive from Naples to Nebraska so that Tim could represent us at The Golf Summit and then on to their intended vacation in the Carolinas.

I have met some great people as I traveled around visiting your local chapters, the welcomes I received were very much appreciated and I hope that I have served you all well.

In closing I can only reiterate what I have said all along, that this is your association and your profession. You owe it to yourself and to your fellow professionals to get involved. Fill out those surveys. Attend those meetings. Make yourself aware of the issues, and be proactive. You bear a considerable amount of responsibility for the future of our industry from your application of pesticides to your conservative use of our state's water resources. Let us show that we are environmental stewards and, above all, let those in elected office know what a huge economic impact we make to our state's economy.

Thank you once again for this opportunity.

*Geoff Coggan, CGCS, MG*

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2002 Memorial scholarship winners from left: Dennis Swander, Blaine Ellerbe, and John Llanos attend golf operations programs at Lake City and Daytona Beach Community Colleges and work for local superintendents. Photo by Joel Jackson.



20-year military veterans and Alan MacCurrach Lifetime Achievement Award winners honored by North Florida Chapter from left: Art Cape, "Capt." Dick Johnson, "Crash" Hall and Robbie Robbins. Photo by Joel Jackson.

North Florida GCSA

## Past and Present Honored at 10th Annual Richards Memorial

The North Florida Golf Course Superintendents Chapter held its Tenth Annual Mike Richards Memorial Scholarship Tournament April 1 at the prestigious Jacksonville Golf and Country Club. The host golf course superintendent was Greg Tharp and more 100 players participated in the event making it a great success.

Kim and Jim Shine initiated the Mike Richards scholarship tournament in 1992 to honor Richards' dedication to the profession. Over the past nine years, the NFGCSA has awarded \$48,000 in scholarships to deserving turf students in the North Florida area. A Mike Richards Foundation has been established that has funds totaling approximately \$31,000. The hope for this event is for the Foundation to become self-sustaining so as to be able to provide

financial help to students. The family of Alan MacCurrach has also been instrumental in promoting the scholarship fund in memory of Alan and his accomplishments in the golf field.

Three separate scholarships totaling \$6,000 were awarded at the tournament. In addition, \$2500 will be added to the Mike Richards Foundation.

Blaine Ellerbe, a student at Lake City Community College, was the recipient of the \$3,000 Mike Richards Scholarship. Ellerbe currently works with Tharp at Jacksonville Golf and Country Club.

John Llanos, a first-year student at Daytona Beach Community College was the recipient of the Alan MacCurrach scholarship. He received a check for \$1,500. Llanos currently is employed at Plantation Country Club,



Barbaron executives, from left Ron Kitchen, Sr., Terry Lagree, and Ron Kitchen, Jr. show off the 10-year collection of mementos highlighting their support of the Envirotron Classic. Photo by Joel Jackson.

Superintendent Kevin Cavanaugh.

Dennis Swander, a fourth-semester student at Lake City Community College, also was the recipient of a \$1500 Alan MacCurrach scholarship. Swander is currently employed at San Jose Country Club, Superintendent Clayton Estes, CGCS

After the tournament, the board of directors of the NFGCSA presented Lifetime Achievement Awards to four distinguished past members. The recipients were chosen by the Historical Committee, chaired by Tom Cowan. The award itself is named the Alan MacCurrach Lifetime Achievement Award in honor of a person who demonstrated the true meaning of lifetime achievement.

MacCurrach died in 1997 and was the epitome of professionalism and dedication to the "Keeping of the Greens."

The awards were presented to Robbie Robbins, Dick Johnson, Crash Hall and Art Cape. Each of these men served at least 20 years in the military and started their golf course careers after leaving the military. We extend our congratulations to these special men.

Glen Klauk, GCS  
Pablo Creek Club

Seven Rivers GCSA

## Envirotron Classic Fundraising Total Nears Half Million

With this year's record participation of 340 golfers in the 10th Annual Envirotron Classic on April 15 at the World Woods Golf Club near Brooksville, the Seven Rivers GCSA has raised more than \$400,000 for turf research projects and equipment at the University of Florida.

Barbaron, Inc, a golf course design and construction firm, once again led the donations as the Champion Sponsor with a check for \$13,500. In recognition for their long-term and generous support of the event, the Seven Rivers Chapter presented Barbaron officials with a large framed case containing mementos highlighting the ten years of the event.

A delegation of key members of the UF/IFAS administration and faculty led by IFAS Vice President Dr. Mike Martin was on hand to personally thank the Seven Rivers Chapter, sponsors and participants for their unflinching support for the IFAS mission in turf research.

Hats off to the following

# Thank You!



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Seven Rivers members for their time and effort: tournament chairman Glenn Oberlander, SRGCSA President Bob Marrino, Stuart Bozeman, Dan Green, Jeff Hayden, Perry Haley, David Hoggard, Mike Hummel, Mark Kann, Buddy Keene, Earl King, Sonny Kirkland, Chris Leahy, Reed Orr, Mike Swinson, Vance Trapnell, Derek Vaughn and Rick Watts.

Suncoast GCSA

### President's Death Adds Sad Postscript to 2002 Scramble

The 2002 Suncoast Scramble had a tragic postscript as long-time Misty Creek CC superintendent and tournament host Tom Crawford died less than two months after the 2002 event held at his former club March 19. Crawford announced his resignation from Misty Creek at this year's event, and he was looking forward to some new career challenges to grow as a multi-course manager. Crawford was also the Suncoast Chapter President.



Tom Crawford (center) doing what he did best - serving his profession. Crawford presented \$2,500 checks John VanVranken (left) and Don Benham for the Florida Golf Economic Impact Study and FTGA Research Foundation at the 2002 Suncoast Scramble. Photo by Joel Jackson.

A trust fund has been set up for the education of his two children. The FGCSA and other local chapters have already donated or pledged to donate to this fund. Any other chapter, club or individual who would like to help the family and honor Crawford's service to our profession may send their contributions to Kasey and Kirby Crawford, c/o David W. Clark, Esq., 24 Thurston

Drive, Palm Beach Gardens, FL 33418.

Life must go on and the Suncoast Scramble's 20-year history and rich tradition of service to the local and state golf industry and programs will continue enriched by Tom Crawford's contributions.

South Florida GCSA

### Turf Expo Sets Attendance Record, Raises \$22,500

Amid the rumors and state

budget cuts affecting IFAS, the South Florida GCSA's Turf Expo set an attendance record of more than 500 people on March 21, at the UF/IFAS Ft. Lauderdale Research and Education Center. Mounting pressure on the University of Florida to take a severe look at research center facilities, missions and productivity has put the Ft. Lauderdale REC in an unwanted spotlight and on a list of possible closings or at the least contractions.

This scenario did not deter the enthusiastic crowd of turf managers and technicians, who toured turf plots for research updates, watched



FGCSA President Geoff Coggan, CGCS, MG (left) accepts a \$22,500 check from South Florida GCSA President Jim Goins, CGCS. The funds are the proceeds from the annual Turf Expo held at the UF/IFAS Ft. Lauderdale REC and FGCSA's Otto Schmeisser Research Green. Photo by Joel Jackson.

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equipment demonstrations, visited the mini-trade show, and attended educational sessions including UF nematologist Dr. Billy Crow's presentation on life after Nemacur.

After all the bills were paid, Jim Goins, CGCS, president of the South Florida GCSA, presented FGCSA President Geoff Coggan, CGCS, MG a check for \$22,500 for turf research two months later at the 2002 Poa Annuia Classic in Naples.

Ridge GCSA

### Ondo Wins Event, Research, Charities Major Beneficiaries

Chilly winds couldn't dampen the success of the 2002 Ridge Invitational held at the Grasslands C.C. in Lakeland on March 4. Host superintendent Roy Wilshire, CGCS and his staff had the course in great shape for the event, which once again raised much-needed turf research dollars. The Ridge Chapter also supports several Polk County charities and youth sports and guidance programs with proceeds from the event.



Joe Ondo, CGCS captured the top spot in the 2002 Ridge Invitational. Photo by Joel Jackson.

Central Florida's Joe Ondo, CGCS took medalist honors to extend his winning streak in the Ridge backyard. Ondo also won the FGCSA Championship in Haines City last fall. During the post-tournament chicken-

and-ribs barbecue dinner, FGCSA Director of Communications Joel Jackson, CGCS gave the attendees an update on government relations issues including the pending phase out of Nemacur.

Everglades GCSA

### Informal Challenge Gave Birth to Major Social Event

Officially, the event known as the Poa Annuia Classic is 27 years old. In reality the event could claim to be 34 since Stan Clark suggested the Everglades GCSA challenge the South Florida GCSA to a friendly golf match back in 1970, and Dwight Wilson suggested a bucket of Poa Annuia be used the mock trophy.

In 1972 Doc Anderson threw a roast pig on the spit and served up some corn and ribs for the hungry golfers. In 1975 the Poa Annuia name stuck and since 1980 and the FGCSA formation it has become a statewide event for those willing to trek to the Naples Beach Club every spring.

The Poa has become as much a social event as it is education, business and golf with families tagging along with superintendents and enjoying the beach while dad/mom attend board meetings, seminars or compete in the Poa Annuia Classic and G.C. Horn Endowment tournaments. It has been fun watching the kids grow up over the years. Of course once they reach the upper teens, it's not cool to hang with the old folks, so it was great to see some new faces as others discover the ambience, fun and camaraderie of the event.

South Florida's Bob Harper from The Emerald Hills Club shot a 70 to take first place in the Poa Annuia. Joe Ondo, CGCS from the Winter Pines GC in Central Florida continued his streak of great golf, finishing one shot back in second place. The rest of the top five included Tyler Warner, Steve Bernard and Joe Pantaleo, all familiar names when it comes to shooting around par golf.

The host Everglades Chapter won the team trophy with the net scores of Mike Dillinger, David Dore-Smith, Scott Hamm and Greg Lauffer.



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## SPOTLIGHT



FGCSA Education Chairman John Lammrish welcomes Dr. Max Utsler from the University of Kansas as the presenter for the half-day GCSAA seminar on Media Relations. Photo by Joel Jackson.



2002 Poa Annuu Classic's top golfers from left, Tyler Warner (third), Bob Harper (first), Joe Pantaleo (fifth), and Joe Ondo, CGCS (second). Not pictured - Steve Bernard (fourth). Harper becomes the first person to qualify for the Florida Team in the 2003 GCSAA Golf Championship to be held at Hilton Head, SC. Photo by Robert Toski.



Superintendent Craig Weyandt operates the camera while Dr. Max Utsler from the University of Kansas, center, puts superintendent Greg Maze through a mock TV interview during his The Golf Course Superintendent and the Media seminar at the Poa Annuu. Photo by Joel Jackson.

Friday morning at the Poa 45 superintendents attended a half-day GCSAA seminar titled "The Golf Course Superintendent and the Media" presented by Dr. Max Utsler, a communications professor from the University of Kansas. A veteran of print, radio and

television media, Dr. Utsler used a variety of real life examples and role-playing situations to show superintendents the role of the media, the importance of being public relations savvy and the mechanics of working with the media.



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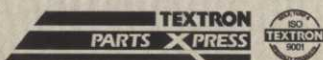
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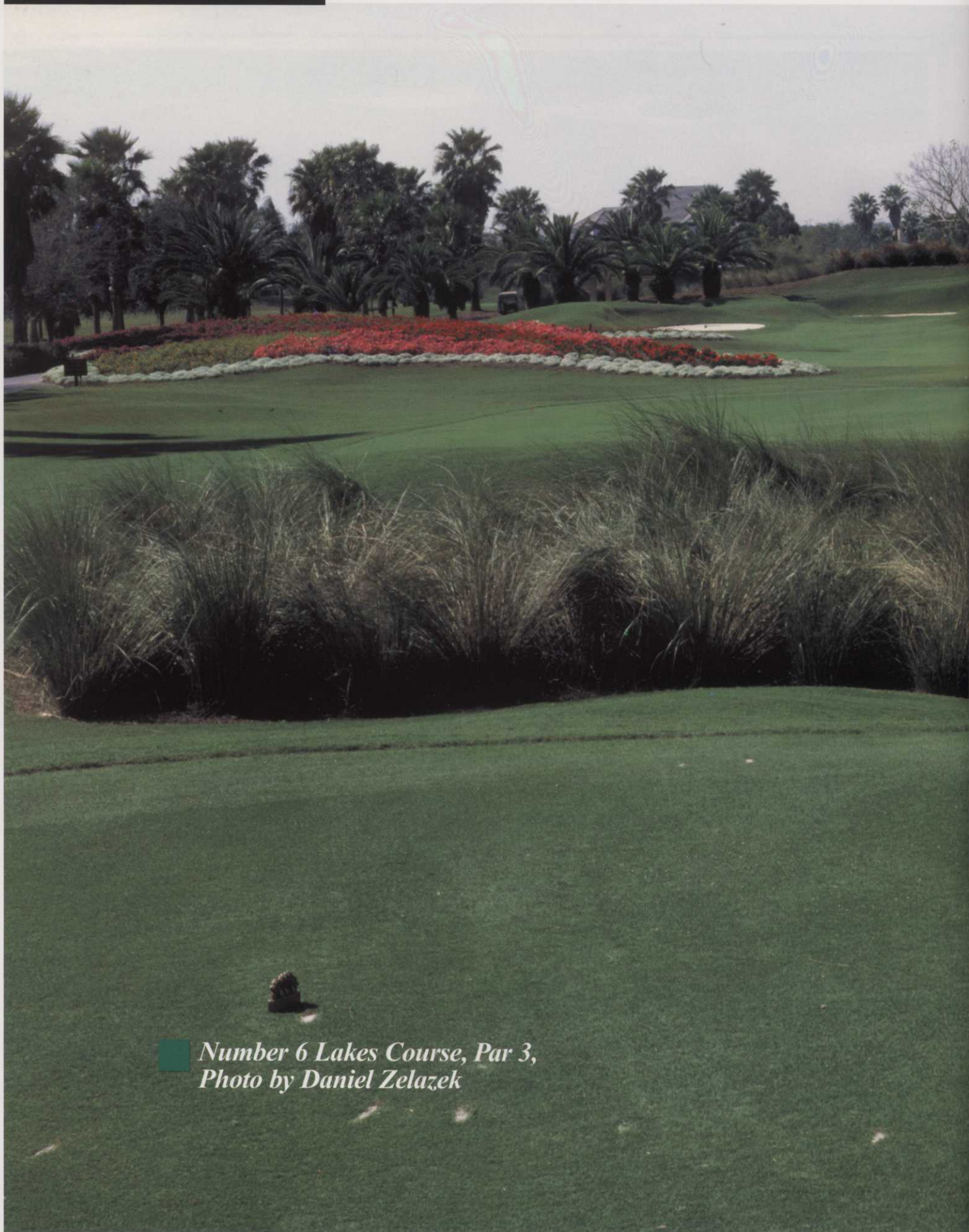
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■ *Number 6 Lakes Course, Par 3,  
Photo by Daniel Zelazek*



QUAIL WEST GOLF AND COUNTRY CLUB

# Spectacular Search for Excellence

*By Joel Jackson, CGCS*

Spring in Collier County brings a subtropical rainbow of flowering trees and shrubs bursting with blossoms of every color of the spectrum. No place was more spectacular this past April than the entrance road to the Quail West Golf and Country Club community in Naples located off of Bonita Beach Road just east of Interstate 75. The impatiens, bougainvilleas, and tabebuias were lit-

erally exploding the landscape in a breathtaking blaze of color.

The Quail West community is about 10 years old. The Preserve Course opened in 1992 and Lakes course was completed in 1996. Two years later Managing Partner Sandra Hesse went looking for a director of golf courses and grounds to help rebuild and upgrade the golf courses. She offered the position to Mark Black, CGCS, who was heading up 90 holes of golf for the Bonita Bay Properties





Many holes on the Preserve Course wind through dense woods. Note the fans on the 190-yard, par-3, seventh hole that help provide extra air circulation. Photo by Daniel Zelazek.

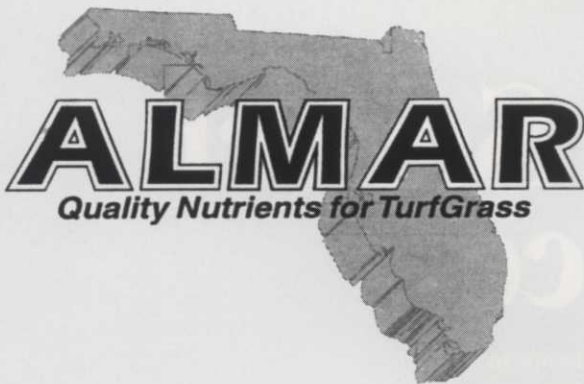
Group. Mark had been with Bonita Bay for 14 years and brought a lot of local experience and a great track record to the table.

The opportunity at Quail West would provide Black with more time to spend with his growing family when his wife and two young children could benefit from having dad around a little more. So with many thanks and fond memories of a great learning experience at Bonita Bay, Black made the move in 1998.

The first order of business for Black at Quail West was the complete rebuilding of the Preserve Course greens and bunkers, including some irrigation upgrades as well. Black chose to regrass the greens with Champion ultradwarf bermudagrass based on his experience and successes on the Bonita Bay courses.

"Some of the holes," according to superintendent Charles Riger, "look as if they were just punched out of the dense woods; they're very scenic, but also very shady and very little air movement." Noting the history of inconsistent playing conditions produced by the adverse growing conditions on several holes, Black consulted with Marsh Benson of Augusta National and Paul Latschaw, then at Congressional, on the use of fans and subsurface air handling systems to find some relief for the problem greens.

The result of this research was to install a Precision Air system with modified drainage lines under the problem greens with the lateral lines 12



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feet apart instead of the USGA-spec 15-foot separation, and to increase the diameter of the main drain line. An air conditioner was installed behind the second green to pump cool air during the dead of summer.

Black says, "We have found that the system works best by drawing or sucking air down through the root profile instead of blowing air into the drain line. It is very effective in keeping root zones drier and healthier during heavy periods of rain."

The success on the problem greens on the Preserve Course led Black to install all the needed hardware, connections and modifications to the drain lines on the Lakes Course in 2000 when they were rebuilt. Black has several gas-powered, portable air-handling units that he can hook up to any green if it needs a little help during adverse weather conditions.

Besides, the rebuilding of the greens and bunkers, the irrigation system was upgraded in 2000 to include a Flowtronex Variable Frequency Drive pump station and Toro Site Pro software for the Network 8000 control system. Like all new systems, there are always bugs to be worked out and Black praised his irrigation technician, Larry Lee, for his keen problem-solving skills and solid work ethic.

The Quail West courses share soil pH management challenges with many other courses in Collier County since the limestone bedrock is near the surface, and the irrigation water also tends to be



Close-up of the annual bed on No. 6 on the Lakes Course, a 215-yard par 3. Photo by Daniel Zelazek.

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The Lakes Course ninth hole from the 150-yard marker on this 582-yard par five. Photo by Daniel Zelazek.

alkaline. With readings averaging around 7.8, Riger says elemental sulfur is applied annually in a late spring or early summer fertilizer application, and a

pHairway acid-injection system is used to treat the irrigation water.

The fertigation system is also used to

constantly manage nutrient levels for good turfgrass root development and to apply wetting agents during dry periods to increase irrigation efficiency.

Although Collier County is not currently under watering restrictions in the South Florida Water Management District, Black says that he feels the experimental permit applications of Curfew made to his courses made all the difference in the world during last year's drought conditions by reducing the nematode pressure on the roots. Black says, "The turf green-up and viability within two weeks of the Curfew application was remarkable. They weren't lush. After all, we were under drought conditions, but they were manageable and they could take up the water and nutrients they needed to survive."

Black's comments on Curfew prompted me to ask his opinion on the recent EPA decisions that affected Dursban and Nemacur.

"In every crisis, opportunities are born," He replied. "A lot of smart people out there are looking for ways to make a living. I don't know the final answer, but five or six years ago, I'd say our number-one nemesis was mole cricket damage. I hardly ever hear people talking about mole cricket problems with the advent of Chipco Choice. We've lost a lot of fine products but we've gained some better and safer ones developed in recent years."

As the "manual" on ultradwarf bermudagrass management continues to be written, Black had a couple of observations on Champion.

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## QUAIL WEST WILDLIFE

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**Amphibians:** Cuban tree frog, green tree frog and southern leopard frog

**Birds:** American kestrel, anhinga, belted kingfisher, blue-gray gnatcatcher, boat-tailed grackle, Carolina wren, cattle egret, common ground dove, common snipe, common yellow-throat, eastern meadowlark, Eurasian collared-dove, glossy ibis, gray catbird, great blue heron, great crested flycatcher, great egret, greater yellowlegs, green heron, killdeer, little blue heron, loggerhead shrike, mourning dove, muscovy duck, northern harrier, northern flicker, northern mockingbird, palm warbler, pied-billed grebe, red-bellied woodpecker, red-shouldered hawk, red-winged blackbird, snowy egret, tricolored heron, turkey vulture, yellow-rumped warbler.

This inventory created in large part from species identified in annual independent survey report on the wetland areas.

"This grass can get so dense during the winter season that even water has a hard time penetrating it," he said. "It is amazing when you consider that we grow it on top of a profile built with percolation rates of 15-20 inches per hour. We have found the most effective and least disruptive way to open them up so the water can perk is by spiking with a Toro triplex unit. Last year we aerified six times during the off-season and we have used a Hydroject on occasion. We also keep them on a steady diet of wetting agents to help moisture penetration.

"Like many private clubs in southwest Florida, the lion's share of our play is from late October to a little after Easter. We are in a reciprocal program in the off-season so that members from certain neighboring clubs can play each other's courses for cart fees only. While this is great for members, it can be tough on superintendents.

"People need to realize these ultradwarfs require a more aggressive cycle of maintenance practices, and clubs just need to ensure that superintendents have the time to accomplish those tasks for maximum performance and playability, especially during the warm growing season. If we are forced to wait until late June to do our aggressive and invasive renovation programs, it can be dangerous in terms of adequate recovery time when dealing with late-summer stressful weather conditions."

Minimizing stressful conditions of any kind was foremost in Black's mind when he took the Quail West position. He had learned at Bonita Bay that taking an organized, business-oriented approach to the golf maintenance operation yielded positive results from the bunker rakers to the board of directors. In his mind, they are all inextricably connected in a common cause.

The entire golf course and grounds management staff took a six-week Dale Carnegie Team Building and Leadership Course. One of the goals was to develop a strategic business plan for the department.

"I felt it was crucial that for us to give

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Quail West has several portable air handlers like this one that can be hooked up to each green's drainage system to move air through the root zone. Photo by Joel Jackson.

Quail West the quality they wanted, we needed to define who we are, why we're here, what are our objectives, and who is responsible for what. The process would pull people together as we answered those questions," he said.

Bringing people together got Black thinking about whom he considered some the best employees he had known in his lifetime.

"I made a list of traits commonly associated with good employees: trustworthy, consistent, reliable, dependable, etc. This was just the surface. I wanted to distill it down to the essence. Finally, the bottom line for me was good employees made my job easier. At the end of the day after all the soul searching, it was the simple selfish reason - they made my job easier

"From there I had to ask myself, 'What kind of employee am I?' Am I making my boss's job easier or my co-managers' jobs easier? If I'm not, then maybe there's a problem. Sometimes that report card on ourselves isn't as pretty as we'd like it," he said.

"I give GCSAA a lot of credit for producing the PDI self assessment program. If superintendents use it honestly, it can be a great self-improvement tool. If you don't use it, you can at least go to your GM and ask him or her for feedback on your performance.

"Another key part of our plan was to create a comprehensive labor study. This document would define every single thing we do. Every superintendent should think about sitting down with key

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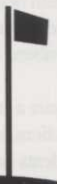


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View from the tee of the par-4, 401-yard first hole on the Lakes Course. There are 50 acres of created, restored or preserved wetlands on the 36-hole layout.  
 Photo by Daniel Zelazek.

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### J. MARK BLACK, CGCS



J. Mark Black, CGCS

**Originally from:** Lake Wales. Fifth generation Floridian from Polk County. I grew up in Florida when it was still a southern state. Some folks call us "Ridge Rats." For those of us like Bobby Ellis, Alan Puckett and others, not only are we OK with that, we're proud of it.

**Family:** Married to Sue for 14 years. Son Teak (7) and daughter Kate (6). I would classify them as cool. Editor's note: A framed collection of Teak's and Kate's artwork occupies a prominent place in Mark's office.

**Education:** Proud Lake Wales HS Highlander. Pursued AA degree at Polk County Community College. 1980 Completed associate of arts and AS in Golf Course Operations at Lake City Community College. Thought I might get my bachelors degree in business, but this has not yet come to pass.

**Employment history:** Senior year in high school and four years after - wholesale nursery business. Worked on crew at Bay Hill Club where I fell in love with the golf business. Worked one year at Grenelefe G&CC to qualify for Lake City program. Upon graduation worked as assistant superintendent under Dan Hall at Imperial Golf Club in Naples for four years. Became superintendent at Bonita Bay GC. After 14 wonderful years with the Bonita Bay Properties Group, I was offered the opportunity at Quail West G&CC. It has been marvelous change and I have enjoyed it here more than I can describe.

**Professional affiliations:** GCSAA and Everglades GCSA for 22 years. EGCSA board member 1987-88. Currently serving as EGCSA secretary. What a great group of professionals.

**Hobbies and interests:** Fishing and Naples is blessed with good fishing. Collecting things: Wooden tops, the kind with the string you wrap around and throw to spin; Old citrus packing labels mostly from Florida and some from California. With the coming of cardboard boxes the old orange crates and labels have gone by the wayside.

J. Mark Black, CGCS

staff and making a list of every task done, daily, weekly, monthly, and annually. Every aspect of golf maintenance takes time, labor and money, and you need to know exactly what those costs are. It's just good business.

"Our list came to 69 tasks. We spent a fair amount of time constructing that list so we could identify in meaningful terms of time and money every single thing we did. Our tasks take us roughly 124,000 man-hours a year to do what we think is needed to provide the quality expected at Quail West. This exercise also yielded some other interesting numbers. I would never believe that mowing the turf would be only 36 percent of our time. I expected it to be higher. While the 5.4 acres of greens is only 2 percent of the area we maintain, they take 22 percent of our labor budget to care for.

"Champion requires frequent verticutting for peak performance. We verticut and topdress greens every other week. With 36 holes, that means we're doing that task 52 times year, which takes 700 hours a year multiplied by the number of employees times the average labor rate. That information is crucial when discussing operating budgets. We know how much time and money it costs to do everything from aerifying the greens to cleaning up the crew's locker room."

Black's labor study can be overwhelming in the sheer weight of data it provides, but superintendent Charles Riger put it a different way, "When you are a professional and good at what you do, it looks easy. To an outsider if it looks easy it must not be expensive, but we know it isn't easy. It takes training, skill, preventative maintenance, gas, oil, lubricants, electricity, sand, soil, pipe and so on." Mark chimed in, "It's like the guy who says, 'I've got a Snapper mower I've had for ten years. How come you guys are always getting new mowers every three or four years?' He doesn't get it that we run our mowers four hours a day, four to five miles a day, seven days a week, year after year. This labor study puts it all down in black and white for discussion and decision making."

One recent decision has Black drooling with anticipation.

"We are rebuilding our entire maintenance facility, and it is a dream come true to be able to bring to bear all the latest innovations and technology to provide a workplace that will hopefully not only meet our needs today but will sustain us in the future. I have visited with other local superintendents and taken photos of the best of the best in terms of design and function. One aspect of the research on maintenance facilities really disappointed me was that GCSAA didn't have any comprehensive reference material on maintenance design or construction.

"I really get upset when I hear owners or architects talk about what does the average maintenance facility need. Why in the world would anyone want to repeat the antiquated, ineffective designs of the past? Local, state and federal regulations have forced the industry to make changes from how we did things in the past, and

not all of that is a bad thing. It really pains me to see clubs take shortcuts when building the facility that has to house and service the greatest asset on the property. I hope golf course architects will promote the idea that the maintenance facilities should be built on par with maintenance requirements."

Black's passion for the golf industry and his admiration and respect for his peers was evident as he recounted his road from landscape nursery wholesaler to director of golf and grounds. "What an absolutely great occupation. This is something I've enjoyed from the first day I stumbled into it 26-27 years ago.

"My dad said, 'I don't care what you do for a living son, just find something you enjoy.' Boy was he ever right. My mother taught me right from wrong. Never tell a lie and if you make a mistake, admit it and take the consequences. Don't blame others for it. Learn from it and move on."

The golf industry is a small fraternity and Black says he owes a big debt to Dan Hall when he served as Dan's assistant at Imperial Lakes Golf Club after graduating from Lake City Community College's program in golf course operations. "Dan took a chance on a raw kid out of school and helped me with everything from my golf game to my professional outlook.

"We had a green chairman, Dr. Milton Maloney who was and still is very instrumental in my life. Dr. Maloney patiently guided me from childish post-college behavior to responsible adult. He drilled into my head the importance of financial planning, accountability, and leadership.

"As for my peers and the influence they had on me the list is a mile long. Dan Hall, Mark Hampton, Tolby Strahan, Tow Cowan, Tim Hiers, Bob Rehberg, Paul Frank, Dan Jones, Frank Dobie, Max Brown, Gregor and Bruce Jamieson, Bill Gamble, Buford Creech, Clayton Estes, Kevin Leo, John Foy and so many others. I can call any of these people any time of day and they would help me with anything. This is what makes this industry so great.

"I remember calling Tim Hiers one day. When he answered the phone I said, 'Hey Tim, what are you doing?' I will never forget his answer. He said, 'Oh, I'm just trying to be a good superintendent.' Those in the business realize just how difficult that is. Nothing worth having comes easily. We are all consciously or unconsciously making decisions on what we are willing to sacrifice to get the things we want. I know I found an occupation I am passionate about and from that passion comes personal satisfaction, pleasure, challenge and reward. What more could I ask for?"

I can't answer that question for Mark, but I don't think he's through asking tough questions of his peers or himself as he searches for excellence for Quail West and in his daily life.

*Nothing worth having comes easily. We are all consciously or unconsciously making decisions on what we are willing to sacrifice to get the things we want.*

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# QUAIL WEST GOLF & COUNTRY CLUB



Quail West Maintenance Staff. Photo by Randy Clark

**Location:** Naples

**Ownership:** Slough LTD, London, England

**Playing policy:** Private

**36 Holes:** Preserve Course and Lakes Course

**Designed by:** Both courses by Arthur Hills. Preserve construction by Central Florida Turf. Preserve opened 1992. Lakes construction by Lippold Golf Construction. Lakes opened first nine holes in 1994, and second nine in 1996.

**Management:** Managing partner Sandra Hesse; club manager S. John Conti; head golf professional Shawn Ward; director of golf courses and grounds Mark Black, CGCS

**Major Renovations/Ongoing Projects:** Rebuilt greens and bunkers and upgraded irrigation systems. Also added subsurface air handling capability to greens - Preserve Course in 1998. Lakes course in 2000. Replaced Tifdwurf greens with Champion. Restoration of 50 acres of wetland plant communities.

Ongoing irrigation and drainage projects.

**Total acreage under maintenance:** 450.

**Overseeding:** None.

**Greens:** 5.4 acres. Champion ultradwarf bermudagrass. HOC: .85-.140 in. depending on weather

**Tees:** 6.7 acres. Tifway 419 bermudagrass. HOC: .375-.450 in.

**Fairways:** 66.2 acres. Tifway 419 bermudagrass. HOC: .450 in.

**Roughs:** 73.6 acres Tifway 419 bermudagrass. HOC: 1.50 in.

**Residential common areas:** 90 acres. Floratam and Seville St. Augustinegrass

**Bunkers:** 113, Toro Sand Pro rake all bunkers with tines/flaps.

**Native areas:** 177 acres - 127 natural, 50 acres created. Vegetation: Bald cypress, slash pine, sabal palm, pickerel weed, arrowhead, fireflag and spike rush.

**Waterways/Lakes:** 21 lakes comprising 100 acres.

**Irrigation:** Source - two wells and ground water. Use pHairway acid injection to lower irrigation water ph (7.8) and bicarbonates (300 ppm). Flowtronex VFD pump station. Toro Site Pro for Network 8000 control system. Approximately 2600 triple-row Toro 780 & 750 heads. Fertigation system applies Aqua Aid wetting agent during dry season and liquid fertilizers per weather conditions.

**Total staff including superintendent:** 51 full time. Average weekly hours: 40 ST, 5 OT.

**Leadership:** Golf course superintendent Charles Riger; assistant superintendent Preserve Phil Garside; assistant superintendent Lakes Dale Daniels; grounds manager David Jones; assistant grounds manager George Pittman; equipment manager Mike Gatch; IPM technicians Mark Thomas (Lakes) & Pablo Gomez (Preserve); irrigation specialist Larry Lee; administrative assistant Carolyn Greenfield; receptionist/Secretary Bonnie Vary.

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# Taking it to Another Level

***Ultimately, GCSAA members will be better equipped to perform their duties as turfgrass managers, facility executives or industry professionals by having to attain the new membership standard***

*Provided by the Golf Course Superintendents Association of America*

A basic tenet of the free-market system is that competition is good for business. By-products of such competition are that companies operate more efficiently and consumers benefit from the downward pressure on prices.

Once largely unaffected by competitive economic forces, golf is now experiencing the influences of an increasingly crowded market where participants seek to differentiate themselves. But if golf facilities are to become more efficient and stand out from the competition, they must have the talent to function at a higher level.

Over the past 75 years, the Golf Course Superintendents Association of America (GCSAA) has provided education, information and representation to the men and women who manage golf facilities. The combined efforts of GCSAA and the golf course management industry have enhanced the efficiency and effectiveness of golf course operations. Golf course superintendents went from on-the-course, trial-and-error training to formalized education and continued learning opportunities. Accordingly, golf course condition quality increased and facilities operated in a more businesslike manner.

But times change, and so does the recipe for success. Recognizing the continued need to keep pace with the marketplace, GCSAA members in February 2001 approved a membership standards bylaw amendment that will showcase the knowledge, skills, and abilities of the golf course superintendent. Beginning in July 2003, GCSAA Class A members will be responsible for completing entry-level and ongoing requirements for continuing education/service, tenure as a superintendent, and a pesticide-application license.

A key feature of the continuing education program is development of occupational core competencies. The establishment of these competencies will further focus and enhance the education GCSAA provides to golf course superintendents and the golf course management industry. One such application of these competencies will occur in the GCSAA certification program. To achieve "Certified Golf Course Superintendent" status, candidates will have successfully completed a rigorous program of study and professional experience over and above that required of Class A, Superintendent Member or Class C members.

Ultimately, GCSAA members will be bet-

ter equipped to perform their duties as turfgrass managers, facility executives or industry professionals by having to attain the new membership standard. For golf courses, a more talented employee sets the stage for improved operations that benefit the facility and its customers. In short, he/she adds value to the facility.

How might added value be manifested for a golf facility? Consider that an experienced superintendent has been on the front line before, and is more likely to respond appropriately in a crisis situation, such as an irrigation malfunction, equipment failure or unexpected onset of disease. An experienced superintendent is generally more likely to manage a staff more effectively and efficiently, eliminating waste or the oversight of details that often distinguish one facility from another. All too often golf course management operations are thought of solely as an expense. However, the work of the experienced superintendent results in input savings that ultimately enhances the bottom line.



*State and local continuing-education opportunities, such as this FGCSA-sponsored, GCSAA-approved seminar at the 2002 Poa Annuia Classic, will play a critical role in achieving performance competencies in the PDI process. Photo by Joel Jackson.*

While education provides the golf course superintendent that foundation for effective golf course management, the facility also benefits from the service he/she provides to the community. The ongoing education/service requirement recognizes the involvement of GCSAA members in supporting junior golf, youth education, philanthropic events and other outreach activities. If there is a common thread among these professionals, it is the service they provide to their facilities, schools, communities and professional organizations.

"The creation of membership standards was never offered as a guarantee that a particular superintendent would be transformed into a higher performer," said GCSAA President Tommy D. Witt, certified golf course superintendent at the Kiawah Island Club. "It tells the golf community that GCSAA

has set a higher standard for its members. It is one that entails experience, rigor and participation in state-of-the-art education and training. The initiative takes the profession to another level that will ultimately benefit the facility and the golfer."

Those intimately involved in the golf industry know that the golf course superintendent has a direct impact on the economic vitality of a golf facility and is a key contributor to a golfer's experience. As a result of the increased standards, the inputs of the golf course management professional will become more valuable and more apparent to the golf community.

## Bringing Everyone Up To Speed on GCSAA's PDI

*Editor's note: A year from now Class A Superintendents will be following a new program of professional standards. The following information gathered and condensed from the GCSAA website is designed to provide you with the latest information on the Professional Development Initiative (PDI). You may access this information at [www.gcsaa.org](http://www.gcsaa.org).*

### PDI Defined

The Professional Development Initiative (PDI) is based on the knowledge, skills and abilities (otherwise known as competencies) demanded by the dynamic marketplace (i.e., what employers want in golf course superintendents). The PDI targets the skills required to meet this demand. When needed, GCSAA will be able to deliver or direct members to quality educational experiences.

These experiences must lead to enhanced skill and knowledge levels that can be documented. Once documented, these credentials can be marketed to employers as tangible and consistent within the profession. As the employers' need change, so will the superintendents' competencies. New programs will be developed to meet the educational needs created by these new competencies.

The PDI links these components through the use of the Professional Development Resource, an Internet-based tool that provides superintendents the ability to assess their competencies and knowledge.

The classification system documents what superintendents are doing on the job. This will provide members with the tools they need to communicate their value to employers and provide GCSAA with the opportunity to integrate this information into our national public relations campaign.

### PDI Communications

A critical aspect of the membership standards bylaws amendment that was approved at the February 2001 annual meeting is communication. Not only is it important to communicate specific changes to the membership, but it is paramount



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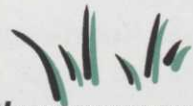


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that they be communicated to the golf industry. To place value on GCSAA membership, employers and influential golfers must be aware of what that membership means. In an effort to communicate that value, GCSAA has enacted a communications plan that was implemented upon passage of the amendment.

The latest tactic is the development of the article that preceded this one. It was distributed to state golf associations, regional golf publications, employer publications, allied associations, chapter publications and selected media outlets. The article focuses on what the new GCSAA membership standards will mean to golf courses. It discusses how an improved education program and a pesticide license requirement will provide better resources for a GCSAA member to condition the game's playing fields.

**Some PDI Questions Answered**

**I am currently a Class A member of the association. What should I be doing now in preparation for the implementation of PDI on July 1, 2003?**

Nothing at this point. As a Class A member, on July 1, 2003, you will be grandfathered into the new system as a Class A member, which will allow you to bypass the new entry-level requirements for Class A members. You will only be responsible for meeting the established ongoing requirements for Class A membership. You may begin earning the educational and service points needed to renew your Class A status anytime after July 1, 2003.

In order to phase in these new requirements, GCSAA will randomly group Class A members (other than current CGCSs) into an initial three-, four- or five-year renewal cycle. Members will be notified in May 2003 as to which cycle they have been assigned. Class A members in each cycle will need the following points to retain their membership status:

- those in the three-year cycle will need three points (minimum of 1.2 must be education points).
- those in the four-year cycle will need four points (minimum of 1.6 must be education points).
- those in the five-year cycle will need five points (minimum of 2 must be education points).

After completing this first renewal cycle, each member will then continue on a five-

year cycle for each subsequent renewal period.

**Should superintendent members and Class C members who wish to obtain Class A status start taking education courses now, even though the new Class A requirements do not start until July 1, 2003?**

As of July 1, 2003, Superintendent Members and Class C members will need three points (two of which must be derived from education), three years of superintendent experience and a pesticide license/passing score on a GCSAA administered exam, in order to advance to Class A status.

Grandfathered Superintendent Members and Class C members may start accumulating education points before July 1, 2003. However, service points will not be available until after July 1, 2003.

**I've read that the certification committee eliminated the external CEU component from the certification program. What does that mean?**

Effective July 1, 2002, the limits currently set on the number of external CEUs an individual can earn toward the initial requirements for certification as well as for renewal, will be eliminated. This means individuals working toward certification and/or certified superintendents will no longer need to monitor whether the CEUs they are earning are from a GCSAA offering or from another external source. However, CEUs earned from external sources still must be pre-approved by GCSAA's education department.

Please note: there is one exception to this new policy in the certification sliding scale, which outlines the education and experience necessary to become a certification applicant. If an applicant seeks certification qualification in category seven, "No Degree or Recognized Certificate," they still will be limited to 21 CEUs derived from previous golf course management-related college experience or short courses longer than four days and less than 400 contact hours.

Also beginning July 1, 2002, GCSAA will be eliminating the nomenclature distinguishing between "external CEUs" and "GCSAA CEUs." Transcripts produced by GCSAA will no longer differentiate between the two; all CEUs will be recorded in one column. There will be a separate column

for PDUs. Keep in mind, with the implementation of PDI in July 2003, GCSAA will be changing the nomenclature of CEU to "education point" and PDU to "service point."

To find out about your specific situation, contact Penny Mitchell, senior manager of certification, at (800) 472-7878, ext. 484.

**I am currently a Class A member. When will I be required to start complying with the new qualifications for Class A membership in order to retain my Class A status?**

Beginning July 1, 2003, all current Class A members will be randomly placed on a renewal cycle of three, four or five years. Certified members will remain on their already established five-year cycles.

Class A members on a three-year cycle will be required to obtain three points by July 1, 2006. Class A members on a four-year cycle will be required to obtain four points by July 1, 2007. Class A members on a five-year cycle will be required to obtain five points by July 1, 2008. By the end of these respective cycles, Class A members also will be required to produce a valid pesticide license or pass a GCSAA-administered exam.

Class A members may begin to complete the requirements for their respective renewal cycles after July 1, 2003, but not before. GCSAA will communicate the assignments of three, four and five year cycles during the spring of 2003.

**I am currently a Class A member and will be responsible for ongoing requirements starting July 1, 2003. Will the seminars I take between now and July 1, 2003, count toward the required points for my first Class A renewal cycle?**

No. Points for renewal cycles must be taken within that particular renewal time frame and cannot be earned in advance of the cycle. In addition, points cannot be carried over to the next renewal cycle if the total number of points has been exceeded.

**I am currently certified. Will I be assigned another cycle for Class A starting on July 1, 2003?**

No. You will remain on your current certification renewal cycle. Members who let their certification lapse will fall back into a Class A cycle

*One Way to Meet the Members*

**My Public Relations is Going to the Dogs**

*By Dan Magdalenskii*

I cannot remember a time in my life that I did not love the game of golf. It all started at the age of 10 when my Uncle John used to pick me up before dawn to go play golf at a local course. We'd be there even before the work crew but that was OK because my uncle's buddy owned the course. The two of us always had a blast during those early-morning golf games. My uncle would help me improve my game, giving good advice and never being condescending. I have always cherished those

memories of golfing in the early morning with my uncle.

I eventually decided that for a job I wanted to do what I loved and began to work on a small course and entered Stockbridge School of Agriculture at the University of Massachusetts majoring in turf management. The program at UMASS is definitely hard work but well worth it.

I worked at several courses after graduation, moving up the ladder as I developed. I realize that to move ahead in your career you sometimes have to leave a job you like for another. With experience in cool-season grasses behind me, I wanted to try a warmer climate to work and live in. After careful consideration my wife and I decided to relocate to Florida.

For the past three years, I've worked as

an assistant superintendent at the Wyndemere Country Club in Naples. Wyndemere is an exclusive 27-hole course designed by Arthur Hills. Though I had worked on golf courses for six years in Massachusetts before we relocated to Florida, this is my first position as an assistant superintendent and I have never loved what I do for work more than now.

This gated private golf course community is the most prestigious I have worked on. Knowing that this position would be a great building block for my career, I have always been very conscientious to learn as much as I can not only about turf matters but also supervising the crew and establishing a rapport with the members, most of whom live on the course for at least part of the year. To be honest though, when I started working here I

*... continued on page 28*

and must complete the minimal number of points in order to maintain Class A status. For instance, if your certification cycle ended in 2005 and you did not fulfill your certification renewal requirements, you would then fall back into the Class A cycle of 2003-2008. You would need to obtain at least five points, two of which must be education points, by July 1, 2008, to maintain Class A status.

**How much will it cost me to obtain the ongoing Class A requirements of five points, two of which must be education points, every five years?**

After July 1, 2003, GCSAA Class A members can earn their five points of credit through a variety of activities.

GCSAA seminars will offer 0.7 education point (currently known as CEUs) for each seven-hour day of education. If a member only wanted to attend seminars, he/she would need to take a little more than seven days of seminars over a five-year period. GCSAA seminars cost approximately \$120 per day, which would equal a little more than \$840 in a five-year period.

There will no longer be a distinction between external CEUs and GCSAA CEUs. All approved education programs will qualify at the same rate. GCSAA also will be granting education points for a much greater number of programs than exist today.

For instance, regional conferences may qualify for education points if the conference is focused on one subject for at least a one-hour period. A member could earn up to one education point per conference depending on the number of hours approved for that particular conference. Turfgrass conferences typically cost from about \$60 to \$200 to attend.

In addition to conferences, GCSAA will be recognizing educational events at chapter meetings that provide at least one hour of instruction on a particular subject. If a chapter had five meetings a year with one education point available for attending each meeting, a member could gain 0.5 education point per year from chapter meetings alone.

GCSAA also is offering education point opportunities through online education and has recently introduced an action learning program to allow superintendents to learn from work-related experiences. Action learning costs \$30 per 0.7 edu-

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cation point. Members can earn three of the five points required through service points (currently known as PDUs). Service points can be earned by attending chapter meetings, writing articles for newsletters, community involvement and a host of other ways.

GCSAA has the obligation to develop more low-cost programs to enable members to participate and improve in areas that will help them be successful in their careers. The total cost of meeting Class A requirements depends on the type of education the member chooses. Depending on the costs of chapter meetings and regional conferences, a member may spend from \$300 to more than \$800 over a five-year period to earn the points needed to maintain Class A status.

**How will I be affected by the additional qualifications to become a Class A member?**

All existing members will be grandfathered into their current classifications. Beginning July 1, 2003, all Class A members will be responsible for completing ongoing requirements.

To become a Class A member, grandfathered Superintendent Members (formerly Class B) and Class C members will be required to:

- Have three years of superintendent experience
- Earn three points (minimum of two education points)
- Provide a pesticide license or pass a GCSAA-developed exam

After attaining Class A status, members will be subject to ongoing requirements. All other member classifications not mentioned above, and nonmembers as of July 1, 2003, will be required to meet the full Class A entry level requirements.

In order to obtain Class A status, non-

grandfathered members must have a combination of years of experience, formal education, continuing education and service points (see the sliding scale). In addition, all applicants for Class A status must provide an appropriate pesticide license for the state in which they work or pass a GCSAA-developed pesticide exam. The GCSAA exam will be specific to the turf industry.

You can view the requirements members in each class, as of the PDI implementation date of July 1, 2003, must fulfill if they wish to become and/or remain a Class A member.

**How does the PDI affect me as an existing Class B member who desires Class A status?**

If you are a Class B or Class C member, you will have to meet the minimum number of years required to be a Class A member (three years as a superintendent), three points (with a minimum of two education points) and meet the pesticide license/test requirements. After attainment of Class A, you will be required to meet the ongoing requirements to maintain this status.

**How does the PDI affect me as a student member?**

This will depend on how far you progress in your career and the classification you attain by July 1, 2003. If you are a student member at the time of implementation (July 1, 2003), you will need to meet the new requirements outlined in this proposal.

**I am currently a Class A member who does not have a degree. I have been in the business for 25 years and am working toward certification.**

**What now?**

You will be grandfathered in as a Class A and, if you complete your certification eligibility requirements and become an applicant before July 1, 2008, you will qualify under the current certification requirements. There would be no change for you. If you do not qualify and become an applicant by that date, you must then qualify for certification under the proposed new requirements.

**I am a new assistant superintendent in 2004 (assume I am not grandfathered) and I have completed one year of college with no degree. What now?**

GCSAA will evaluate the college courses completed and count those courses that support and are relevant to the GCSAA established competencies as 1.5 education points per hour up to a maximum of 30 education points. Let's say the courses qualify for 25 education points. A member without a degree would need seven years of superintendent experience and an additional 15 points (the number must total 40, of which 32 must be education points). Of the 15 remaining points, seven would need to be education points but eight could be derived through service points such as attendance at chapter meetings. In this case you would need to acquire a little more than two additional points per year during the seven years superintendent experience period to qualify for Class A.

**I am a Class A member with no formal college education. However, I have 10 years in the business. Because of circumstances beyond my control, I lost my job and am not able to continue my professional development. How do I re-enter the classification system?**

If you lose your job, you can reclassify

... continued from page 26

was more concerned about doing my job as an assistant and less concerned about establishing relations with the members.

I unintentionally got to know some of the members by doing what comes naturally to me, using my lifelong love of animals to meet and pet their dogs. Since I enjoy animals so much, especially dogs, and especially Jake, the Border collie that my wife and I own. I always look forward to seeing the dogs that live on the course. I have always talked to them and given them a pat on the head whenever I could.

While interacting with the dogs a conversation would usually start with the member. I'd ask questions about the dog, maybe about the breed or the temperament of the dog or whatever came to mind at the time. I began to carry biscuits for the dogs in my cart. I'd see a member walking their dog and ask them if I could give their dog a treat.

Of course I got to know the dogs very quickly; in turn I got to know their owners. Now many times during the week while I am working one of the dogs will come up to me looking for a treat and some attention.

Using the dogs as a way of meeting some of our members was a happy accident that has helped build my rapport with them. So if you are looking for a means to establish better public relations with the members of your golf community, going to the dogs isn't a bad way to start.



Dan Magdalenski's love for animals, especially dogs like his border collie Jake, helped him break the ice with some of the members at the Wyndemere C.C.

to an inactive member and have your Class A renewal period frozen. At the time you become re-employed as a superintendent, you will regain your Class A status and will have the amount of time that was left in your five-year renewal period at the time it was frozen to complete the renewal requirements to retain your Class A status.

If you choose to leave the association however, and rejoin later, you will enter as a superintendent member and will need to earn the renewal points that you were lacking from your last cycle, plus an additional five points in order to regain Class A status.

**I am a student seeking a two-year certificate in turfgrass management at Michigan State University. How long will it take for me to be certified?**

The time needed to become certified depends on your career path and how long it takes for you to become a golf course superintendent. However, to hypothesize, let us say that immediately after you receive your degree from MSU you go to work as a crew member on a golf course for one season. After one season you are hired as an assistant superintendent. During the next two years, you work as an assistant and during this time you are attending local educational events. After two years you are hired as a superintendent at a local golf course, and you move your classification status from assistant (Class C) to Superintendent Member (Class B).

Under the PDI proposal, you would serve as a Superintendent Member for four years; then, if you had obtained five points and met the pesticide requirement, you would move to Class A status. In order to become certified you would need to stay a Class A member for three years. You would be required to self-assess your current competencies against those outlined in the PDR and create a Developmental Action Plan that would outline any professional development or continuing education you may need. You will be required to obtain five education points before submitting your application. At that time, you will be eligible to sit for the examination that is based on the competencies outlined in the PDR, and have your course attested by two certified golf course superintendents. At this point, you would have spent 10 years in the golf course management business, obtaining knowledge and experience recognized by the certification process.

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# I Love It When a Plan Comes Together!

By Joel Jackson CGCS

On an old NBC-TV action series about a group of do-gooder mercenaries called The A-Team, the group's leader, Hannibal Smith, portrayed by actor George Peppard used to say, "I love it when a plan comes together" as their intricate schemes bore fruit and the bad guys were conquered. These loveable renegades had a mission to accomplish, often with limited resources and some sort of time constraints. In short, to succeed, they had to have a plan. Are golf course maintenance teams very much different?

Does your club or even your department have a plan or standards for the successful accom-

plishment of your mission - to produce the best possible playing conditions for your customers or members? If not, why not? Most everyone mows greens daily; mows tees three times a week, etc. That's not a plan; that's a schedule.

A long-range plan, or a set of standards, is a way for a club to meet the ongoing and future needs of the golf course to remain prosperous and competitive in the business world. Grass mutates, drains clog, cart paths and irrigation systems wear out, trees die or grow bigger and make more shade. Do you wait until a whole slew of problems hit critical mass before taking action? Or do you plan to address changes and modifications in an orderly fash-

work as invisibly as possible to the member or guest playing all around them.

Our principles of operation ensure that we adhere to club policies and procedures and employ sound management decisions in our efforts to achieve our stated mission.

There are over eight hundred golfers at The Fountains CC with a wide variety of experience and skill. The courses should always be aesthetically pleasing and groomed that allows golfers at any skill level to enjoy the game. At times of exceptionally



Royal Poinciana  
Golf Club

## LONG RANGE PLAN 2002

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## Long Range Plan Excerpts FOUNTAINS COUNTRY CLUB

### Mission Statement

Our goal is to provide the finest possible golfing experience to the members and guests of The Fountains C. C.

### Principles Of Operation Safety

The safety of employees and members will not be compromised.

### Environmental Responsibility

All programs will incorporate "Best Management Practices" in order to minimize environmental risk.

### Financial Responsibility

The Golf Maintenance Department will follow club policy in all budgeting, purchasing, and record keeping procedures.

### Standards For Golf Course Maintenance

The mission statement of the golf course maintenance department states our primary goal. We understand that each member or guest may have a different view of what a great golf experience is. The scratch player focuses on the playing surfaces and is more concerned with how the ball can be played form the turf than what the turf looks like. Another player enjoys the feel of lush green grass under their feet and the beautiful colors of flowers outlining the courses. Still another may find enjoyment in the natural beauty of our wildlife and wood-ed common areas.

As managers we attempt to maintain the golf courses in such a way that each of these diverse views, is acknowledged, addressed, and provided in a way that maintains the overall integrity of each course and still is pleasing to the widest variety of tastes. The staff attempts to accomplish their individual tasks in a way that causes as little disruption to play as possible, always aware that while they have a job to complete, they must make every effort to

Duty Performed	People	Hours to Complete Daily	Total Man Hours Per Week	Times Only Per Week	Times Per Week	Total Man Hrs Required / Week
Roll Greens	6	2.8	16.8	24	0.18	6.82
Wash Mow Greens	17	7.5	127.5	760	0.00	180.00
Copps Setup	8	2.5	20	200	2.00	100.00
Rake Traps	6	2.5	15	300	7.00	105.00
Mow TOL	4	7	28	196	3.00	84.00
Mow (WVY)	4	7	28	196	3.00	84.00
Mow Rough	4	20	80	507	1.00	80.00
Mow Slopes	4	20	80	507	1.00	80.00
Grounds Mowcut	2	20	40	252	1.00	40.00
FlyMo Traps	7	17	119	757	1.00	119.00
Trash on Weddings	2	12	24	154	0.40	11.00
Weeding Lake Banks	4	24	96	616	1.00	96.00
Blow Fairways	2	3	6	38	0.29	1.75
Blow Rough	2	3	6	38	0.46	2.91
Blow Cart Paths	2	5	10	64	0.46	2.91
Blow Tee Green	2	2	4	25	0.29	1.75
Edge Cart Paths	6	20	120	770	0.12	24.00
Edge Traps	6	20	120	770	0.46	29.10
Edge Tee Mats	2	14	28	178	0.23	2.20
Divot Boxes (Ballwashers)	2	6	12	77	1.00	12.00
Alpha Greens	8	2.8	22.4	142	3.00	87.80
Omega Greens	1	7	7	44	1.00	4.00
Apply Fertilizer to greens	4	1.5	6	38	0.36	2.20
Spray Foliage	2	2	4	25	0.36	2.20
Fertilizer Walk to Walk	2	10	20	127	0.28	3.80
Disease / Insect Suspension	2	30	60	387	1.00	60.00
Topdress Greens Tees Traps	2	0	0	28	0.40	1.20
Aerify Greens	2	20	40	252	2	2.00
Aerify Tees	1	32	32	200	0.04	1.20
Aerify Fairways	4	40	160	1000	0.07	3.00
Aerify Rough	4	40	160	1000	0.07	3.00
Vertical Greens	2	7.8	15.6	97	0.28	2.78
Vertical Tees	2	32	64	400	0.07	1.20
Vertical Fairways	2	48	96	600	0.07	1.80
Spray Weeds	4	0	0	200	2.00	188.00
Spine Greens	2	18	36	222	2.00	64.00
<b>Total Man Hours Calculated Per Week</b>						<b>1413.79</b>
<b>Total Man Hours Available per man per week</b>						<b>88.20</b>
<b>Number of Employees Required per Week</b>						<b>16</b>
<b>Total Employees Currently Employed for Golf Courses 14 Holes</b>						<b>47</b>
<b>Subtotal Maintenance, Secretary, Director, Irrigation crew, Tree Crew</b>						<b>11</b>
<b>Number of Employees Available per Week</b>						<b>36</b>

Worksheet used by The Fountains to implement part of its plan.

poor weather or other unusual environmental conditions, these standards may be temporarily adjusted to protect the long-term health of the golf courses. If these standards are to be adjusted, it is Directors responsibility to provide alternative programs of construction or maintenance that could be undertaken to achieve the desired results. These programs should contain a detailed analysis of the commit-

ment in time and money that would be necessary to achieve and maintain these newly adopted standards.

The greens should have a solid, dense covering of turf that allows for a smooth ball roll. They should be weed free and be able to accept and hold well-played incoming shot. Every effort will be made to keep the greens as fast as possible without excessive risk for loss of turf. There should be as little variation in speed between greens as possible. Flags should be the correct color to indicate the placement of the cup on the green. Pins should be set with six front, six middle, and six back, whenever possible.

Tees should provide a flat surface with dense coverage to provide secure footing. Markers should be six short, six middle, and six back whenever possible and provide an overall distance that is acceptable for the rating of the golf courses.

Fairways should provide a consistent lie with dense coverage and a surface that allows the ball to "sit up". They should be as weed free as possible with good color.

Bunkers should be consistent in sand type and depth. They should be edged as necessary to provide a clean outline.

The rough should be as consistent and weed free as possible with uniform color. The green slopes should be as dense as possible to allow for a fair shot to the green. Tee slopes should be dense enough to provide safe access to the tee surface.

Lake banks should be maintained at a height that is slightly higher than the rough to help stop balls from entering the water. The lakes should have a minimum of aquatic weed and algae growth.

The cart paths should be free of potholes and maintained with a clean edge.

Golf course accessories such as rakes, ball washers, etc. should be in good working condition and aesthetically pleasing.

The golf course maintenance department will work with the Golf Professionals to ensure that the courses are marked according to the USGA Rules of Golf.

ion to keep costs under control and the course in good condition?

Superintendents should take the initiative to bring the idea of long-range planning and maintenance standards to the attention of the officials up their chain of command. Even if the officials decline to act immediately, at least you are on record as being aware and concerned for the financial and operational welfare of your club. You will also be documenting the actual costs to maintain the golf course to their demands and expectations. This documentation can be a great tool in demonstrating the cause-and-effect relationship when new committees want to make changes to the golf course or its maintenance practices.

As the old saying goes, "The best laid plans of mice and men often go astray." And in the research for this Hands On topic, my preconceived ideas of what long range plans and maintenance standards are and how they are administered were given a reality check. Check out how these topics are approached by your peers.

### Long Range

What is long range? For Greg Maze, at the Twin Eagles G.C. in Naples, it is one year at a time. Twin Eagles opened in 1997, but had to reorganize under new management in 2000. Until the club accumulates more real estate and membership sales, its planning is limited to working with a fledgling budget that is growing slowly but surely. Maze says, "We have a list of prioritized projects we want

to accomplish. Right now we pick one and put it in the budget for next year, so we do have a plan. As the club grows we will be able to forecast farther into the future."

Clayton Estes, CGCS at the San Jose C.C. in Jacksonville said the club's board of directors requested in 2000 that the green committee prepare a long-range plan for golf course maintenance. Estes called on John Foy, director of the USGA Green Section Florida Region, for help and advice. Using a report-card concept of evaluating the golf course, a punch list of needed projects was produced.

Estes says, "In the long run the plan became primarily a budget tool for expanding existing line items annually to accomplish some of the improvements identified in the plan - a justification for raising the line item over its normal operating amount. With the current economic uncertainty, it has been tough to stick to the plan and put in those extra dollars to take care of those projects. We have done a little better with our five- to seven-year equipment-replacement plan. Each year the equipment up for replacement is given an A, B, or C priority. Like any plan, it is a living document and needs to be reviewed annually and changed as needed."

Peter Brooks, CGCS at The Everglades Club in Palm Beach said the club had a five-year course-improvement plan all mapped out to address the issues facing the historic Seth Raynor-designed golf course that opened nine holes in 1919 and the

full 18 in 1926. The course had been reworked and "modernized" a couple of times over the years, but there were still significant irrigation, drainage, fairway contouring and grassing issues to be faced including fairway off types and upgrading the Tifgreen 328 greens to TifEagle.

Brooks said, "We were proceeding with our plan in an orderly fashion when all of sudden we came to a decision-making crossroads. The South Florida Water Management District ruled that we had to improve our storm-water runoff-retention capacity, which meant we had to deepen and enlarge all of our lakes.

"Forced to tackle that project immediately created a chain reaction realization for the club. If we excavated the lakes we would generate fill needed to contour fairways. If we contoured the fairways we would need to install new drainage collection basin and drain lines to the lakes. If we tore up and redesigned the fairways we would need to redesign our irrigation coverage. If the course was going to be closed why not regress the course? All of a sudden our five-year plan became the 2002 Renovation Plan.

"While it will be a challenge to get everything done by our projected opening date of December 1, 2002, we will be gaining a new irrigation system, removal and relocation of all trees causing shade problems to greens. They will all be in full sun in the new layout. A complete tilling of the fairways with sand from the lakes will break up the

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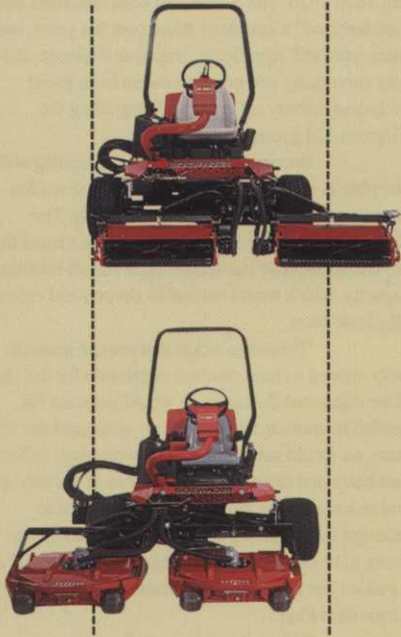
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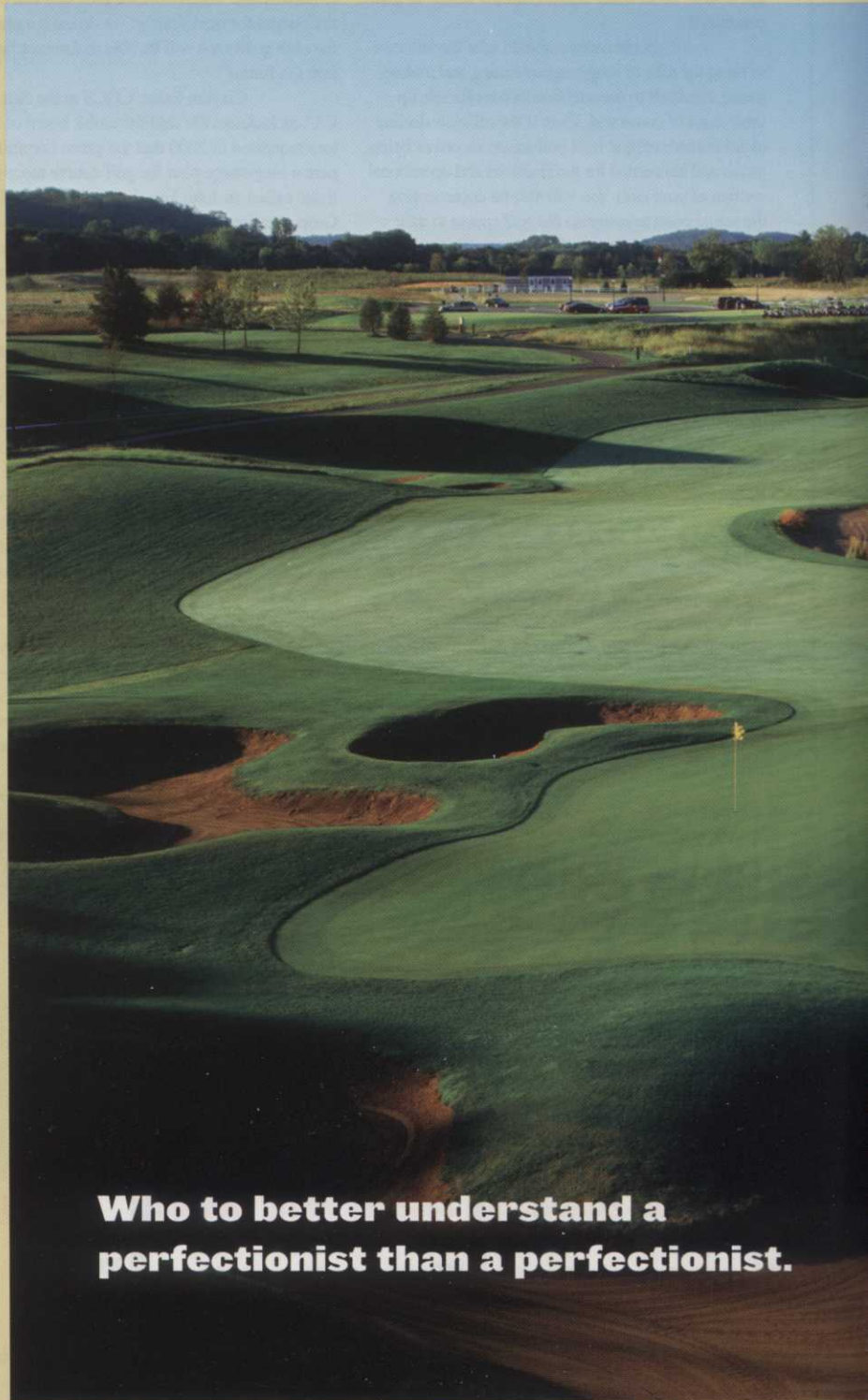
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organic layers built up over the past 70-80 years. So we're still operating with a plan in mind. It's just on an accelerated track."

Brooks also has a five-year capital-equipment-replacement plan in place, which will have to be tweaked to include a whole new fleet of flex greens mowers to accommodate the new TifEagle turf on the new Brian Silva layout which will bring back some of the original Raynor design features.

Brooks says, "Our long range equipment plan allows the club to know the capital costs each year. It discourages procrastination in budgeting for some needed items because they can't be deferred too long before the bill keeps getting bigger to pay for the replacement items. Of course any good plan is adaptable and never in concrete. In fact in most cases by using GCS maintenance-record-keeping software and sticking to manufacturers' recommendations, we have improved our equipment's life span and our five-year plan is really more like a seven-year plan."

### Three long-range plans

Meanwhile back on the west coast, Matt

Taylor at the Royal Poinciana G.C. inherited a long-range plan already in place. Taylor brought along some ideas he had learned working with Tim Hiers at Colliers Reserve and Mark Black at Bonita Bay East. Working with the Royal Poinciana committee and board members, they modified the plans. In fact there are actually three long-range plans Taylor is involved with: Course Operations (5 years), Capital Equipment (10 years), and Course Improvements (5 years). Each plan is re-evaluated every spring and receives final approval in the fall.

Taylor said, "Each year we look at the issue and determine the priority of what needs to be done from the major course improvement projects down to providing amenities and adjust as needed and submit to the board for approval. Having these plans in place and in writing gives me a certain comfort level with my duties and responsibilities. There should be no surprises for me or the club about what is expected or what we are going to do. It provides a stable business-like atmosphere for the growth and development of the club.

"We also have a set of maintenance

standards to guide our employees in the performance of their duties. These standards are built into our training program for each employee and cover the basic safety and performance requirements for each job and piece of equipment. There is a binder containing the standards and procedures for every job and equipment and as each person masters each job he is signed off and certified for that equipment or operation."

### Maintenance Standards

I learned that creating maintenance standards for golf course operations had just as many different applications as did long range plans. However, they did have common threads like safety, training, consistent performance and quality. Because intimate knowledge of the tasks and desired results is required, most maintenance standards are written by the superintendent. It is important, however, for the club to recognize what goes into achieving those standards and that for every action there is a consequence in time and money.

Chip Fowkes at the Fountains G.C. in

## Golf Course Morning Duties

### FOUNTAINS COUNTRY CLUB

*This is a brief description of the tasks that are performed every morning on the golf course before play begins.*

#### Manager in Charge

*This is assigned to the Director, Superintendent, or Asst. Supt.*

- Check answering machine.
- Check weather computer for threatening weather.
- Check irrigation computer for last night's report.
- Morning line-up with crew before deployment.
- Check main and supply irrigation pumps.
- Inspect driving range and practice areas.
- Report cart rules and check tee sheets with pro shop staff.
- Ride and inspect both courses.
- Discuss next day's requirements with mechanics.

#### Course Setup

*This is usually assigned to an Asst. Supt. or key employee that is familiar with the basic rules of golf and how the game is played.*

**First tee start-** One employee, 4 hours

**First and ten-** Two employees, 3 hours

**8:30 Shotgun-** Three employee hours, plus one employee, 1 hr.

Changing of the cups, or pin locations and tee markers. This is done daily according to a charted system that ensures that a variety of positions are covered and wear is distributed evenly throughout the greens and tees.

Move cart control ropes and check ball washer areas for all golfer amenities.

Empty trash containers and check to see that all water and ice machines are functioning properly.

Check scorecard and tee holders.

#### Walk Mow Greens

*This is the preferred method of mowing. Each mower is 22" wide and gives a more even and tighter cut than a ride on machine.*

**First tee start-** Three employees, 3 hours

**First and Ten and Shotgun-** Four employees, 2.5 hours

**Triplex Greens-** This is a machine with three 22" mowers mounted on a small tractor. The main disadvantage to tri-plexing greens is the potential for tire wear when circling the perimeter of the greens. It is also more difficult to set and balance three independent cutting units to mow evenly when set at heights of .135 and lower. The advantage of the tri-plex mower is the savings in manpower and speed of operation.

Tri-plex mowers are also used as a "double cut" mower, following the walk mowers to provide a tighter cut and faster green. When greens are verti-cut they are usually followed by a tri-plex to clean up the clippings.

**First tee start-** One employee, 3.5 hours

**First and ten and shotgun-** two employees, two hours

The frequency of "double cutting" and, rolling and mowing, is one of the most important aspects of faster, smoother greens without reducing mowing height. This is possible when there is a maintenance staff large enough to fill these positions.

#### Rake Bunkers

*Most golf courses today use small riding bunker rakes with hand raking saved for major tournaments*

*and events. It provides a much smoother and even surface if a second worker can be sent along with the machine operator in order to hand rake rough spot, pull weeds and rake the bunker edges.*

**First tee start-** One machine, 4 hours, with optional hand worker, 3 hours

**First and ten-** Two machines, 2.5 hours, with two optional hand workers, 2 hours.

#### Less Than Daily

The following tasks are performed at different intervals depending on the desired level of maintenance and supporting budget. The majority of golf courses mow these areas three times per week on Monday, Wednesday, and Friday. There is a movement at the finer clubs to go to a more frequent mowing schedule of every other day including weekends. The higher frequency of cut results in less scalping, tighter lies and more definition.

#### Tees, Collars & Approaches

*The intermediate cut circling the green and the short cut area between the fairway and green. Mowed with the same style triplex mower as is used on the greens but set at a height between .350 and .5 inches*

**First tee start-** 2 mowers, 3 hours.

**First and ten -** 2 mowers, 4 hours.

**8:30 Shotgun-** 4 mowers, 2 hours.

Every other day- 3 mowers, 2.5 hours.

#### Fairways

*Whether fairways are striped by mowing each line in the same direction every cut, or mowed in different directions like a putting green, more frequent mowing schedule produces a tighter turf stand.*

**First tee start-** 2 mowers, 3 hours.

**First and ten-** 2 mowers, 5 hours.

**Every other day-** 3 mowers, 2 hours.

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### Closer Mowing Heights

After three-times-per-week mowings at 1/4", research conducted in Tifton GA shows that TifSport can tolerate closer mowing heights than Tifway and Midiron. Sod density was excellent.

### Superior Turf Density

TifSport has a greater density than Tifway-about a 1-point difference on a 10 point scale. And it's about 3 points better than common bermudagrass.

### Good Lateral Growth

TifSport is more aggressive than genetically pure Tifway, especially during the cool weather months. This may account for TifSport's rapid grow-in and repair time.

### Superior Sod Strength

TifSport has superior sod strength. This translates into improved playing conditions and resistance to divot injury in football, golf and baseball.

### Excellent Traffic Tolerance

TifSport's density, sod strength and good lateral growth rate give it a high ranking for traffic tolerance. Athletic field managers and golf course superintendents are reporting outstanding re-growth from normal wear and tear.

### Upright Leaf Blade Orientation

TifSport's leaf blade orientation and stiffness is being touted by many golf course superintendents. They feel TifSport gives a better ball lie in cut fairways and roughs.

### Impressive Leaf Texture

TifSport has a similar leaf texture to Tifway, and a finer leaf texture than most other grasses used on fairways and tees. This also helps promote good footing on athletic fields.

### Dark Green Color

TifSport has a dark emerald green color versus the somewhat lighter green of Tifway and Quickstand.

### Drought Tough

TifSport developer Wayne Hanna has data from a 2-year study showing that TifSport has good drought tolerance. It not only stays green longer but it also recovers faster.

### Cold Tolerant

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## Long Range Planning Process

### JOHN'S ISLAND CLUB

By Greg Pheneger

The Mission Statement of John's Island Club includes the phrase: "Maintain, improve and add club facilities and equipment as needed, keeping them in first class up-to-date working condition at all times". To accomplish this goal, the club instituted a long range planning committee in 1999. Prior to 1999, planning at John's Island tended to be episodic, depending upon specific issues, projects and needs. The strategic plan listed goals and instructed the club to work on a five-year plan so that the club's direction would be managed.

A five-year plan including corresponding costs is compiled by each department head. The plans are then looked at by the appropriate committees and then forwarded to the long-range planning committee, usually after a few modifica-

tions. The long-range planning committee then ranks each and every item in the plans for presentation and recommendations to the board. This procedure is accomplished in conjunction with the finance committee to ensure the appropriate funding is available.

I was very fortunate when I arrived at John's Island because there was already a very good equipment replacement program in place. The equipment plan optimized useful life with trade-in values so that the club got the most for their money. Equipment maintenance programs must be a very high priority to enhance trade-in values. Tweaking to the equipment plan has been done to accommodate the full course oversee programs on the beach courses.

Capital projects such as green rebuilds, bunkers, fairway, etc. needed to be plotted. I took the plan a step further by producing a ten-year plan. The ten-year plan is required for capital projects since most of the items we are replacing last much longer than 10 years and the ten-year plan simplified this task. I consulted with John Foy of the USGA Green Section, architects,

contractors and fellow superintendents for information regarding their replacement schedules. The timing differed on most items; however, armed with this information, I was able to formulate conclusions that worked for John's Island. I then gathered costs for each item, adding inflation costs at 3% each year, plus a 10% contingency. Architect or engineering costs were incorporated one year prior to the actual job start-up date.

The plan allows the club to clearly visualize future spending. Large projects are not a surprise to the membership, and through the vision of this plan, they can formulate a clear decision on these projects. Always keep in mind that the plan must be updated each year and projects will move within the long range plan and items will be added and/or deleted.

Do not be discouraged or think that the club will not spend the money for the items needed most because items may be re-prioritized. A well-thought-out long range plan will allow the club to discover ways to obtain money to accomplish the necessary projects to conform to its mission statement.

Lake Worth is a big believer in maintenance standards. Fowkes said, "I drafted my first set of standards while working at Frenchman's Creek. There were four things I wanted to accomplish by having a set of standards approved by the club: accomplish the mission of the golf maintenance department;

address players' expectations for a well-groomed golf course; define performance guidelines for our employees; and address our environmental and financial responsibilities to the club."

I asked Chip if he developed the standards in conjunction with the green committee and

he said he didn't think that was very practical.

He said, "Committees are made up of players all skill levels. We would get bogged down in 12 different discussions on playing conditions and never get a document written. It is much easier to go back and tweak a couple of sentences than to argue

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over the whole document line by line. I write the standards and then submit them to the committee annually for approval. Committees can change each year so it's important to do that.

"My first source for the standards was crew input for the obvious reason - they do the work every day. Another reason is that I wanted to establish grassroots belief in our goals to get buy-in and ownership of the responsibility for achieving the standards. These standards are then part of our training program for every employee to help each one succeed at his or her job and to provide a good quality for our members. By defining all our jobs, we also provide valuable documentation for budget preparation. When asked why you need X dollars for labor or equipment, it's pretty easy to open up

the binder and show them in black and white."

Kenyon Kyle at the 54-hole Shadow Wood C.C. in Naples said he was motivated to develop maintenance standards for his own peace of mind. Kyle said, "I watched Mark Black's responsibilities grow from a single 18-hole golf course to a 90-hole, multi-site operation with Bonita Bay. Obviously, his time spent on the golf course had to go down as he got involved in company meetings and planning sessions. The first week at Shadow Wood I knew I would need to create a set of standards like Mark did at Bonita Bay. I wanted guidelines in place that would help me meet my expectations as the person ultimately responsible."

"In conjunction with the general manager and head golf professional, we have a running list of

projects on the docket. Since we are owned by the developer we don't have a typical green committee, but rather an advisory committee made up of members that provides monthly feedback on issues and concerns. I also make it a point to be in the cart staging area near the pro shop on Men's Day to meet new members and chat about our plans and operations.

"Shadow Wood is a 54-hole complex. I knew supervising the grow-in of the new Preserve course was going to take a lot of my time. As director of golf operations I want to make sure my superintendents and the staff had all the resources they needed to provide a consistent quality experience on all the courses. By establishing and training the crew with a common set of standards we should be able to accomplish that goal."

## SUPER TIPS



*A custom built cabinet organizes irrigation control and communication components allowing for quick visual inspection and providing protection against unwanted tampering or mishandling. Photo by Darren Davis.*

## Oak Hill Irrigation Upgrade Provides Lots of Easy Tips

On a recent visit to Oak Hill Country Club in Rochester, NY, golf course superintendent Paul B. Latshaw was kind enough to show us several "Super Tips" that may benefit many Florida golf course superintendents.

Oak Hill will serve as host for the 2003 PGA Championship, one of golf's four major championships. The Club, founded in 1901 boasts a Donald Ross-designed golf course and is no stranger to major golf tournaments, having hosted three US Opens, the 1980 PGA Championship and the 1995 Ryder Cup Matches. The golf course is also ranked in the top 25 on most Top 100 lists.

Latshaw and his staff have spent the last several years preparing for the upcoming PGA championship by revitalizing the conditioning of the

golf course to meet and exceed expectations of the PGA for hosting the upcoming championship. Included in this revitalization was a major irrigation renovation and the following two "Super Tips" relate to that irrigation project.

### Command Center

The first tip was found in the new computerized irrigation system "command center." Adjacent to the computer that runs the irrigation program, is the additional hardware needed by the Rain Bird control system to send and receive the data necessary for the smooth operation of the state of the art irrigation system. At other facilities that I have visited, depending on one's house-keeping practices, I have seen the various components placed in tight quarters and often in disarray. This can be a little scary especially when we rely so heavily on our irrigation systems for accurate and dependable water distribution. At Oak Hill, a custom-built cabinet was used to organize the additional components in a manner that allows for

quick visual inspection and provides protection against unwanted tampering or mishandling.

### Transportable Head

The second item I found intriguing is a transportable irrigation head that can be used to spot irrigate areas that are either not receiving adequate coverage from the system or in need of special attention. 1-1/2-inch PVC was used to construct the base of the unit with a Rain Bird 900 series irrigation head attached to the threaded fitting in the center of the base. During the initial use, Latshaw determined that operating the unit with a standard 1-inch hose, resulted in a loss of approximately 40 psi, severely decreasing the efficiency of the irrigation head and the desired irrigated radius. A 1-1/2-inch hose was then purchased from a local fire hose distributor and the spot watering device is now functioning very well.

*Darren Davis*



*Easy and affordable to construct, this portable 1-1/2-inch PVC base is stable and delivers extra irrigation where needed at optimum pressure. Photo by Darren Davis.*

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## Contribution of Florida's Golf Course Industry to the State's Economy

By John J. Haydu, Ph.D. and Alan W. Hodges, Ph.D.

Golf is a highly popular recreational activity in the United States. In 2000, there were over 15,000 golf facilities in the country (*NGF 2001*). Florida has more than 1,300 public and private golf courses, more than any other state. Numerous acclaimed golf courses in Florida are host to prestigious tournaments, including several on the PGA Tour, which is headquartered in the state. Golf courses in the Ft. Myers, Naples, and Ft. Pierce/St. Lucie areas of Florida are among the top five specific golf destinations in the U.S. Florida's warm climate allows golf play throughout the year, and golf is a primary activity for many of the millions of tourists who visit the state each year.

A decade ago, an economic study (Hodges et al, 1994) examined the value of the golf course industry to Florida's economy. The present study updates this information for year 2000 to reflect the growth in the industry and to assess the impact of golf tourism to Florida. Because out-of-state visitors bring new money into the Florida economy, their impact on the golf industry and tourism sector is associated with an economic multiplier effect. This involves three levels of economic activity:

- **direct** expenditures by tourists,
- **indirect** expenditures by golf facilities on inputs used in operations and maintenance, and
- **induced** impacts resulting from personal consumption expenditures by industry employees and allied suppliers.

Water use for landscape irrigation is a critical and growing issue in Florida. Many golf course superintendents are aware of the increasing political pressures to reduce consumption or switch to alternative water sources, such as reclaimed water. Mounting urban populations are placing unprecedented pressures on the natural resource base in many regions of the United States. At the same time, heightened environmental awareness by the public is focusing attention on heavy consumers of water, fertilizers, and pesticides (Haydu et al, 1997).

These pressures are being felt increasingly by agricultural interests and commercial users of these inputs. Golf courses, which are generally located close to or within urban centers, are particularly prone to public scrutiny of resource-use practices. With more golf courses than any other state, and with a rapidly expanding urban population, the Florida golf course industry is often in the spot light with regard to water consumption practices. This is particularly true during periods of drought, which Florida has experienced in recent years. This study

examines water use patterns by golf courses to document irrigation and consumption-related issues.

### Methodology

Information to be collected from Florida golf courses and issues of concern to the golf industry were determined based on comments received in two focus group sessions with golf course owners and managers at Apopka and Naples, Florida in July, 2001. These sessions included a total of 12 industry professionals, representing industry associations, individual golf course owners, managers, and superintendents. Based on their recommendations, a mail survey approach was employed rather than a telephone survey, since typically several people in each organization would be required to provide different types of information. Information collected in this survey was for year 2000 and included two major categories:

#### 1. Financial Information

- Business revenues
- Financial expenditures
- Employment
- Value of assets managed

#### 2. Descriptive, Operational and Cultural Information

- Type of golf course
- Number of golf rounds played
- Geographic origin of golfers
- Number and value of associated residential developments
- Golf course area managed
- Types of turfgrass maintained
- Volume and source of irrigation water consumption.

Survey questionnaires were mailed to a list of golf courses that was compiled from three different sources:

- 1) the membership of the Florida Golf Course Superintendents Association,
- 2) the subscribers to *Florida Golf News* magazine, and
- 3) Florida firms listed in the Reference USA data base under Standard Industrial Code 7992 (public golf courses) and 7997 (private membership sports clubs).

These lists were combined, sorted and checked to eliminate duplicates, resulting in a list of 1,334 firms. Surveys were mailed to the listed firms two times, in October and November 2001, with a follow-up reminder postcard mailed one week later. Completed survey questionnaires were received from 223 firms, representing a 17 percent response rate. Results for survey respondents were extrapolated to estimate values for the entire population using expansion factors computed as the population divided by the number of respondents for each major type of variable. For certain types of data that are applicable to only some respondents, an overall expansion factor of 5.8 was used.

### Results

#### Golf Course Characteristics

Florida golf courses fall into eight main categories, but are dominated by three major types - private, semi-private and public (*Table 1*). From the survey sample, half (50 percent) of the golf courses were privately owned, an additional quarter (27 percent) were semi-private, and 14 percent were public facilities. The remainder was comprised of municipal, residential development, resort and "other". These percentages differ moderately from estimates in the 1991 study that showed 60 percent of courses were classified as private, 17 percent semi-private, and 12 percent were classified as resort.

The decline in the percent of courses that are private is consistent with the findings of the National Golf Foundation. Their 2000 study showed that fully 87 percent of all new openings nationwide were public access facilities, and they expect this trend to continue in the coming years.

**Table 1.**  
Ownership patterns of Florida golf courses, 2000.

Course Type	Number Respondents	Percent Respondents
Private	112	50.2%
Semi-Private	61	27.4%
Resort	12	5.4%
Public	31	13.9%
Military	2	0.9%
Residential		
Development	17	7.6%
Municipal	20	9.0%
Other	1	0.4%

Note: percent does not sum to 100 because some respondents checked more than one category.

#### Golf Course Area, Turf Varieties and Water Use

Total acreage devoted to Florida golf facilities in year 2000 was 207,582 acres, of which 147,927 acres (95%) were maintained turfgrass playing areas, and 140,274 acres (70%) were irrigated (*Table 2*). The maintained turf area (fertilized, sprayed and mowed) was up from 131,300 acres in 1991, a 13 percent increase for the 10 years. The average area per course was 108 acres irrigated and 114 acres maintained turf. The average area of maintained turf per course has decreased from 125 acres in 1991.

**Table 2.**  
Golf course area in Florida, 2000.

	Respondents (Number)	Mean (Acres)	Standard Error (Acres)	Expanded Total (Acres)
Land owned	214	160	11	207,582
Turf area maintained	217	114	5	147,927
Area irrigated	217	108	5	140,274

Although more than half a dozen varieties of turfgrass are used on Florida golf courses, by far the predominant was bermudagrass (*Table 3*). Roughly 92 percent of the 147,927 acres of maintained turf area was planted in bermudagrass, or 102 acres per course. This grass is preferred in Florida for its drought resistance, tolerance to heavy traffic, and utility in either the fairways or rough. Far down



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Table 3.

Turfgrass varieties used by Florida golf courses, 2000.

Turfgrass Variety	Respondents		Mean	Standard Error	Share of Total		Expanded Total Acres
	Number	Percent	Acres	Acres	Percent	Acres	
Bermudagrass	214	96.0%	102	5	92.5%	136,773	
Bahiagrass	67	30.0%	4	2	3.5%	5,251	
St. Augustinegrass	89	39.9%	3	1	2.7%	3,996	
Mixed/other grasses	25	11.2%	1	1	0.9%	1,351	
Zoysiagrass	25	11.2%	0	0	0.2%	257	
Centipedegrass	6	2.7%	0	1	0.2%	299	
Specific other type(s)	26	11.7%					
Total					100.0%	147,927	

the list in second place was bahiagrass with 5,251 acres, representing 3.5 percent of the total, or 4 acres per course. Bahiagrass is typically limited to the golf course rough. St. Augustinegrass was the only other turf variety that was of significance, with 2.7 percent of the total acreage planted. Each of the remaining varieties constituted less than 1 percent, and are generally limited to the special tee and greens areas.

This study examined three aspects of water use by golf courses - sources of irrigation water, changes in water use per acre, changes in fertilizer use per acre, and whether or not the golf course had installed an automated irrigation control system. Total water use by Florida golf courses in 2000 was estimated at 172 billion gallons. Information related to water sources is shown in

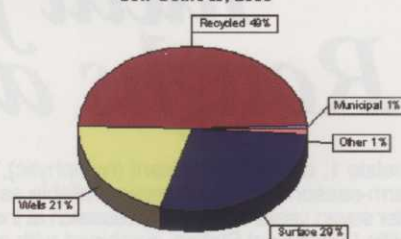
Figure 1. Nearly 85 billion gallons of water came from recycled water, compared to 49 billion for surface water, 35 billion from wells, and 1.5 billion from municipal sources.

Taking total irrigated acres and dividing it into the total amount consumed from all water sources, average consumption by Florida golf courses was 1.23 million gallons per acre, or 3.75 acre feet applied in 2000. The use of recycled water was the primary source for almost half of all golf facilities and has grown from 8 percent in 1974 to 21 percent in 1994 and to 49 percent in 2000. The second most common source was surface water such as canals and lakes (29 percent), followed by groundwater (21 percent) from wells. Use of surface water rose from 23 percent of golf courses in 1974 to 37 percent in 1994, but then declined to 29 percent in

2000. Groundwater as a source declined from 61 percent in 1974 to 41 percent in 1994, falling further to 21 percent in 2000. Clearly, much of the shift from surface and groundwater has been replaced by the dramatic growth in the use of recycled water to irrigate Florida's golf courses.

Survey data on changes in water and fertilizer use indicate that Florida golf courses have markedly reduced (60 percent) consumption of fertilizers and pesticides on a per-acre basis and were increasingly shifting sources of water from ground to recycled. From a water-policy and efficiency standpoint, perhaps even more important than total consumption per acre are changes in water-use patterns over time. To address this issue, golf course superintendents were asked whether irrigation water use per acre over the past five years had increased, decreased or

Figure 1  
Irrigation Sources for Florida Golf Courses, 2000



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**Table 4.**  
Changes in Florida golf course consumption of water and fertilizer use, 2000.

Change Variable	Respondents	
	Number	Percent
<b>Irrigation water use per acre over past 5 years</b>		
Increased	20	9.0%
Decreased	94	42.2%
Remained same	93	41.7%
Amount increased	18	8.1%
Amount decreased	83	37.2%
<b>Fertilizer use per acre over past 5 years</b>		
Increased	64	28.7%
Decreased	39	17.5%
Remained same	104	46.6%
Amount increased	64	28.7%
Amount decreased	39	17.5%

remained the same (Table 4). If it increased or decreased, respondents were asked to specify how much it had changed. By a slim margin, the majority (42.2 percent) indicated that their water consumption had decreased and the reduction in water use by this group averaged 37 percent. Slightly fewer (41.7 percent) said per-acre use remained the same. Nine percent of respondents indicated water use increased over the past five years and that it increased by roughly 8 percent.

A similar set of questions was asked about per-acre fertilizer use patterns over the past five years. Nearly half (46 percent) of all respondents stated that fertilizer use remained the same.

**Table 5.**  
Geographic origin of golfers playing golf in Florida, 2000.

Geographic Origin	Respondent		Mean Rounds	Standard Error	Share of Total Percent	Expanded Total Million Rounds
	Number	Percent				
Local (county) residents	184	82.5%	20,372	1,315	53.7%	31.47
International visitors	133	59.6%	2,049	347	5.4%	3.16
US residents outside Florida	175	78.5%	10,277	980	27.1%	15.88
Non-local Florida residents	146	65.5%	5,209	663	13.7%	8.05
Total					100.0%	58.56

More than a quarter (29 percent) indicated that it had increased and that the average percentage increase was 28 percent. Almost a fifth (18 percent) stated fertilizer use had declined, with the magnitude of reduction a similar percentage (18).

Finally, respondents were asked whether the golf course had automated irrigation systems installed, and whether they were original or retrofitted from a manual system. Nearly all (94 percent) stated that their course had an automated system and more than half (53 percent) indicated it was installed at the time of original construction.

#### Visitor Originations

Florida is well known for its large influx of winter visitors from many northern states as well as international locations, particularly Europe and South America. The geographic origin of golfers in general tends to be associated with distance to the course. At 54 percent or 31.4

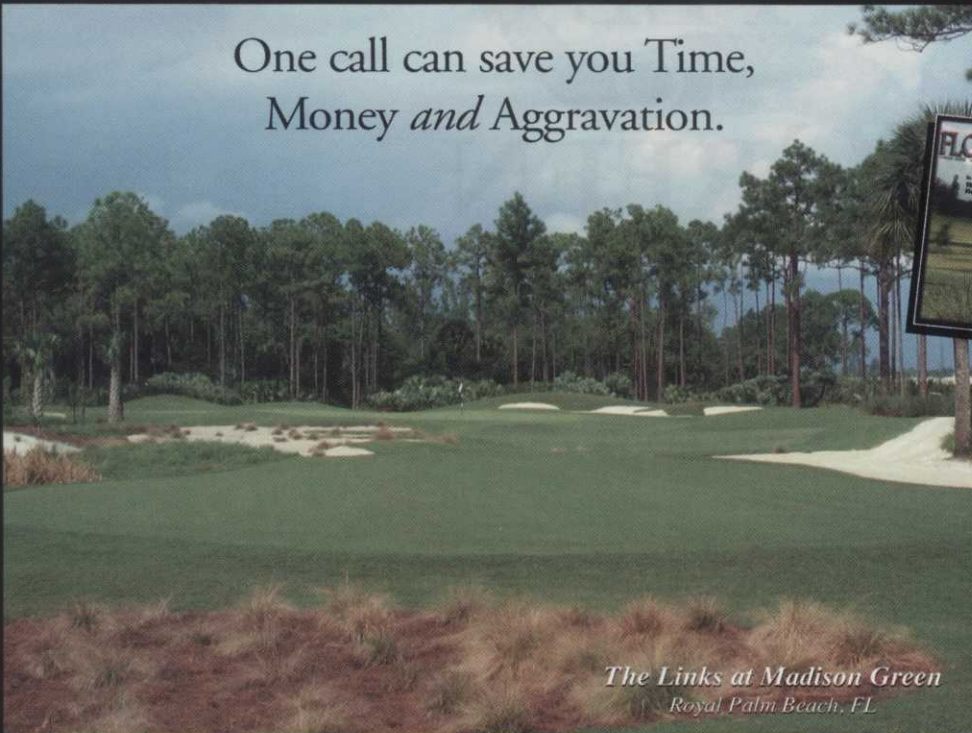
million rounds, local county residents were the group most frequently playing golf (Table 5). The second-most-common group comprised U.S. residents from outside Florida, representing 27 percent of total rounds played. Nonlocal Florida residents were the third-ranked group with 14 percent or 8 million rounds, followed finally by international visitors who accounted for just over 5 percent or 3.2 million rounds of golf. A total of over 19 million rounds (32%) were played by out-of-state visitors to Florida.

#### Florida Golf Visitors and Expenditure Impacts

One of the objectives of this research was to estimate the total economic impact of golf visitors to the state of Florida. The tourism industry publishes information regarding the impact of tourism to the state, but estimates of the impact of golf-related recreation specifically have not been made. Information was obtained from the National Golf Foundation on golf traveler characteristics in

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the United States, such as the average number of rounds played per day and per year, the number of days spent annually in golf-related travel, the average number of golf trips per year, and average expenditures per trip.

The typical U.S. golf traveler makes 6.6 golf-related trips per year with an average of 3.95 days per trip, or a total of 26 days each year in golf-related travel, and spends an average of \$1,114 per trip or \$282 per day on lodging, local transportation, food, entertainment, golf lessons, gifts, and miscellaneous other expenses, but excluding transportation to the destination (Table 6).

This study assumed that U.S. average golf travel data are representative of golf travelers to Florida since this state is the largest golf travel market in the United States. The U.S. travel data were used together with the survey data on total rounds of golf played in Florida by out-of-state visitors (19,046,060) to estimate a total of 3.12 million golf-playing visitors to Florida in 2000, who made 20.6 million golf-related trips and spent a total of 81.5 million visitor days in Florida.

Based on the U.S. average golf-travel expenses per day and the estimated number of golf-visitor days in Florida, total golf-travel expenditures

by Florida visitors amounted to nearly \$23 billion (Table 6). Based on the number of travel days and number of rounds of golf played, we estimate that 23.4 percent of the total trip expenditures, or \$5.4Bn, may be attributed to golf.

As noted earlier, visitors to Florida impact the economy at three levels - directly on expenditures such as food, recreation, lodging and entertainment, indirectly by the receiving industries of those dollars as they in turn spend money to purchase goods and services to operate their businesses, and induced impacts from personal consumption expenditures by the employees of these companies and their allied suppliers.

The cross-section of industries influenced by tourist dollars, for the major sectors of the Florida economy, and the three levels of economic impact are shown in Table 7. These impacts (direct, indirect and induced) are extrapolated and classified into three types of impacts - output, value added, and employment.

- **Output impact** is a gross figure that represents total revenues generated from the three levels of economic activity.
- Total **value-added impact** is a net figure that removes all purchased inputs used by the respective industry to generate their goods and services. This is similar to net income after cost of goods sold (COGS) have been subtracted from total income.
- Finally, the **employment impact** represents the jobs that are generated from all the activity across

**Table 6.**  
Travel expenditures by Florida golf visitors, 2000.

Type of Expenditure	Average Per Trip (1)	Average Per Day (2)	Estimated Total Expenses (3)	Estimated Expenses Attributable to Golf (4)
Type of Expenditure	\$	\$	\$ Million	\$
Lodging	403	102	8,303	1,941
Transportation	87	22	1,793	419
Food	203	51	4,183	978
Entertainment	113	29	2,328	544
Golf lessons	106	27	2,184	510
Gifts	87	22	1,793	419
Other	115	29	2,369	554
Total expenses (5)	1,114	282	22,953	5,364

1 National Golf Foundation, 1999. *The U.S. Golf Travel Market, 1998 Edition*. Publication 99MR002.  
 2 Average per trip divided by average number travel days per trip.  
 3 Average expenditure per day multiplied by estimated number of traveler-days.  
 4 Share of trip expenses attributable to golf (23%).  
 5 Excludes transportation expenses to destination of \$227 per trip.



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the economy due to golf.

The output impact from golf tourism spending totaled \$12.86Bn. It was dominated by three sectors - services, which accounted for \$5.06Bn, or 39 percent of the total; trade with \$3.05Bn, or 24 percent of the total; and finance, insurance and real estate, which comprised 10 percent or \$1.36Bn. Combined, these three sectors represented more than four-fifths of the total output impact.

A similar dominance by these sectors occurred for total value-added impact, with services accounting for \$3.27Bn (39 percent), trade for

\$2.14Bn (25 percent), and finance, insurance and real estate comprising \$984M (12 percent) of the \$8.46Bn total. Value-added impacts also included an impact on labor income of \$5.58Bn and impact on indirect business taxes paid to local, state, and federal governments of \$792M.

Finally, the number of jobs generated by golf tourism, measured as an employment impact, was 215,873 in 2000. The component responsible for the majority of employment was the service sector with 96,000 jobs, followed by trade with 72,000 jobs, and third was the government, which accounted for nearly 17,000 jobs.

**Table 7.**  
Total economic impacts of golf visitor expenditures in Florida, by industry sector, 2000.

Industry Sector	Total Output Impact (\$million)	Total Value Added Impact (\$million)	Total Employment Impact (jobs)
Services	5,060	3,268	95,641
Trade	3,049	2,144	71,574
Finance, Insurance, Real Estate	1,355	984	7,092
Transportation, Communication, Public Utilities	1,031	649	11,229
Government	971	886	17,109
Construction	779	282	7,509
Manufacturing	534	192	3,321
Agriculture	63	36	1,385
Other	11	11	958
Mining	6	3	55
<b>Total</b>	<b>12,860</b>	<b>8,455</b>	<b>215,873</b>

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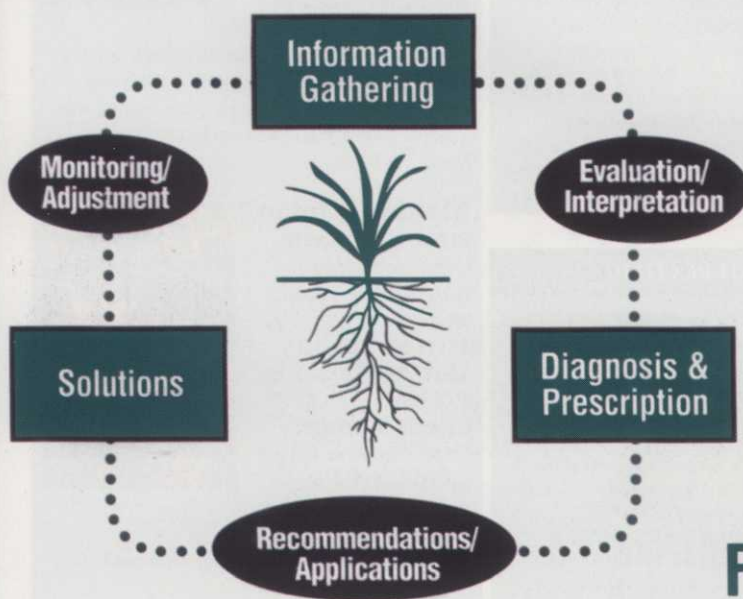
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**Table 8.**  
**Employment by Florida golf courses, 2000.**

Employee Type	Respondents		Mean	Standard Error	Expanded Total
	Number	Percent			
Golf course maintenance, full-time	221	99%	16	1	21,205
Golf course maintenance, part-time/seasonal	156	70%	3	0	2,396
Clubhouse/other, full-time	190	85%	27	3	30,170
Clubhouse/other, part-time/seasonal	167	75%	19	2	18,268
Total Employment	222	100%	56	4	72,038

**Golf Course Employment**

Employment is a vital indicator of an industry's contribution to a local, regional, or national economy. Wages stimulate an economy when they are spent locally in the purchase of other goods and services. In 2000, Florida's golf-course industry employed a total of 72,038 people, including 51,375 full-time workers and 20,663 part-time workers (Table 8).

Almost one-third (32.7 percent) of these full- and part-time employees worked on golf course maintenance activities, while the remaining two-thirds (67.3 percent) worked for the golf course clubhouse and/or related food service or recreational concerns.

The average golf course employed 16 full-time and three part-time people for its highly intensive maintenance work, which includes both the care of the course and the equipment used to maintain the turf-grass. On a per-acre basis, this translates into roughly one person for every 5 acres of maintained grass.

At two-thirds of the total, the clubhouse component of the golf facility utilizes the larger share of total employment, due primarily to the larger number of separate business activities. For example, depending on the size of the facility, services may include hotel operations, restaurant management and service, and recreational services such as golf and tennis instruction. The average golf course employed 27 full-time people and 19 part-time or seasonal labor for clubhouse-related activities.

On average, total facility employment translates into one employee for every \$150,000 of financial assets - land, vehicles and equipment, irrigation systems, and golf-owned buildings and installations.

These figures attest to the substantial employment impact Florida's golf course industry has on the state's economy. Put in different perspective, golf course industry employment was close to the 80,000 people that work for all the theme and amusement parks in the state and greatly exceeded the 50,000 wage and salaried employees in agriculture (Florida Statistical Abstract 2000).

**Summary**

Economic impacts of the Florida golf industry were estimated for year 2000 based upon a survey of golf courses, together with other published data and regional economic models. Respondent golf courses were classified as private (50%), semi-private (27%), public (14%), municipal (9%), resort (5%), and military (1%).

Total annual revenues amounted to \$4.44 billion (Bn), including membership and initiation fees (38%), playing fees (27%), food and beverage services (18%), retail sales (6%), lodging (4%), and miscellaneous other activities (9%). The revenues for year

2000 were 49 percent higher than a previous estimate of \$3.0Bn in 1991-92, representing an average annual growth rate of 5 percent in nominal dollar terms.

Total industry employment was 73,000 persons, including clubhouse personnel (68%), and golf course maintenance personnel (32%), with 71 percent as full-time and 29 percent as part-time, temporary or seasonal employees.

Water used for irrigation amounted to 173 billion gallons, of which surface waters were the dominant source (90%), with lesser amounts from recycled water sources (7%) and wells (3%). Compared to 5 years ago, water use per acre was increased by 9 percent of firms, decreased by 42 percent, and remained the same for 42 percent. Fertilizer use per acre was increased by 29 percent of firms, decreased by 18 percent, and remained the same for 47 percent. The irrigation control system was automated by 94 percent of courses.

**ACKNOWLEDGMENTS**

This study was made possible by a sponsored research project funded by the Florida Turfgrass Association, WCI Communities, Inc., Florida Golf Alliance, Florida Golf Course Superintendents Association, Everglades Golf Course Superintendents Association, Taylor Woodrow, and Bonita Bay Group. Guidance on the study objectives and survey design was provided by golf industry professionals including Ken Plonski and Lou Conzelmann, WCI Communities; Roy Bates, Florida Turfgrass Association; Ron Garl, Florida Golf Alliance; Geoff Coggan and Joel Jackson, Florida Golf Course Superintendents Association; Michael Fiddelke, Florida Club Managers Association; Ken Hylkema, FPCA; Jack Brennan, Paladin Golf Marketing; Amy Courson, PGA Tour; Stephanie Gordon, Florida Golf Course Owners Association; Matt Taylor, Royal Poinciana Golf Club; and Bill Wert TruGreen ChemLawn. Survey data entry was performed by Effie Philippakos, University of Florida.

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**PLANTS OF THE YEAR FOR 2002 - PART 3**

*Editor's Note: This program, sponsored by the Woody Division of the FNGA, introduces purchasers to under-utilized, but proven Florida plant material. Selected each year by a panel of horticulturists, nurserymen, educators, landscape architects and other professional members of the horticulture industry, these plants have attributes which attract wildlife or have minimal maintenance impact on the environment.*

**Robin Holly**

**BOTANICAL NAME:** *Ilex x 'Robin'* (tm) 9486  
**HARDINESS:** Zones 7-9  
**MATURE HEIGHT AND SPREAD:** 10'-15' tall, 6'-8' wide

**CLASSIFICATION:** Evergreen shrub  
**LANDSCAPE USE:** Specimen shrub, small tree or hedge

**CHARACTERISTICS:** large, dark green spiny leaves have a reddish-maroon foliage when new growth emerges. The glossy foliage shows off the red berries of this improved plant.



**Hidden Ginger**

**BOTANICAL NAME:** *Curcuma zedoaria*  
**HARDINESS:** Zones 8-11

**MATURE HEIGHT AND SPREAD:** 4'-5' tall  
**CLASSIFICATION:** Perennial  
**LANDSCAPE USE:** Specimen or ground cover for shade

**CHARACTERISTICS:** Maroon colored inflorescence with yellow flowers appears in the spring before the foliage. Leaves are tropical looking with a purple midrib. The bloom can be cut for a long-lasting cut flower.



**Mammy Croton**

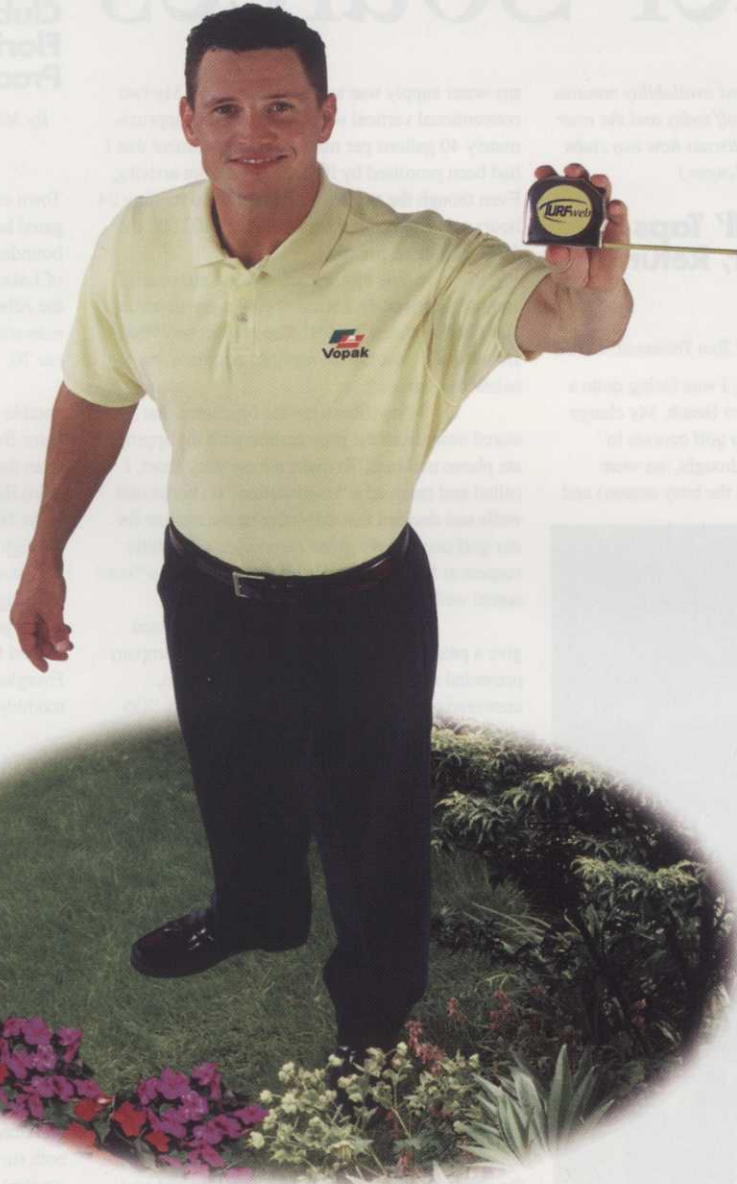
**BOTANICAL NAME:** *Codiaeum 'Mommy'*  
**HARDINESS:** Zones 9B-11


**MATURE HEIGHT AND SPREAD:** 3'-5' tall, 2'-3' wide  
**CLASSIFICATION:** Colorful shrub for full sun  
**LANDSCAPE USE:** Accent, hedge or specimen


**INTERIORESCAPE USE:** Color specimen in very high light  
**CHARACTERISTICS:** Leaves are a fiery orangish-red with variegation of green and yellow. The narrow leaves form a slight twist to give this plant a different look from the ordinary croton.



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# Alternative Water Sources

*Editor's Note: Water quality and availability remains the number-one issue facing golf today and the near future. The following articles discuss how two clubs sought solutions to those challenges.)*

## 'Horizontal Well' Taps Surficial Aquifer, Returns Investment

By Tom Trammell, CGCS

In August of 2000, I was facing quite a dilemma at Hawks Nest in Vero Beach. My charge was maintaining one of the top golf courses in Florida, we were already in a drought, we were going into the dry season (and the busy season) and



Tom Trammell, CGCS, stands in front of the horizontal well installed more than one year ago. The well provides more than 300,000 gallons of water per day for irrigation usage. Trammell notes that he has made sizeable savings over the last year due to improved water quality and reduced electrical cost for pumping from the shallow source. Hawk's Nest is scheduled to add one more well in the summer of 2002.

my water supply was terribly inadequate. My two conventional vertical wells were yielding approximately 40 gallons per minute and the effluent that I had been promised by the county was not arriving. Even though the two existing wells were running 24 hours a day, the course was still short 400,000 to 500,000 gallons per day.

Some effluent arrived, but not nearly enough. Fortunately, I remembered a presentation that I had attended in 1990. The subject was "horizontal wells" that tap the surficial aquifer a few feet below the surface.

In my files were the brochures that I had stored away from the presentation with the appropriate phone numbers. To make a long story short, I called and received a "re-education" on horizontal wells and decided that they may be the answer for our golf course. My green committee was a little suspect at first, because no one had heard of a "horizontal well."

I asked the company to come in and give a presentation to the committee. The company presented a short video, made a presentation, answered questions, and the committee said, "Go ahead." I was a little nervous, because it was all on my recommendation, but I plunged forward and had the well installed.

I am writing this article in March of 2002 and, here in Florida, we were still in the midst of a drought. The horizontal well not only has provided ample, good quality water (and continues to do so), I am using less electricity because the well is only 18 feet deep. Additionally, I am applying fewer soil supplements because of the quality of the water, and I am recycling anything that is unused. I was able to make a presentation to my green committee that demonstrated our horizontal well would pay for itself in 10 years.

The horizontal well taps the water that lies near the surface and directly beneath the golf course in a surficial water zone. This technology has the ability to recover water from this resource and deliver it in sufficient quantity to satisfy irrigation and lake augmentation needs. Surplus water that is not used in actual irrigation is returned to the surficial aquifer to be reused later. The system can be permitted to be used as a stand-alone water supply source or to supplement existing water supplies.

The horizontal wells are site specific. However, they work in most places in Florida. To determine if a horizontal well will work at your golf course, you need to spend approximately \$2,500 to \$3,000 for a 25- to 30-foot boring and have a hydrologist run computer models. The report will be pretty accurate and give you a much better idea of what you will get with the horizontal well than you

will ever have when you drill a conventional vertical well.

This is a technology whose day has come. If your site will accommodate a horizontal well, then chances are you will not only have a more-than-adequate supply of good quality water; you will also have a return on your investment.

## Club Taps Surficial, Floridan Aquifers, Processes in Own RO Plant

By Michael Caglioni, P.G. and Peter Brooks, CGCS

The Everglades Club is located in the Town of Palm Beach, which is located on an elongated barrier island, the Island of Palm Beach, bounded to the west by the man-made saline estuary of Lake Worth/Intracoastal Waterway, to the east by the Atlantic Ocean, and to the north and south by man-made inlets. The Everglades Club is a private, par 70, 18-hole golf club that covers 70 acres.

The original irrigation water supply was potable drinking water purchased from the Town of Palm Beach Utilities, which purchases its bulk water from the City of West Palm Beach. The City of West Palm Beach obtains its raw water from a surface water body, Clear Lake, and is treated mainly through green sand filtration. The Everglades Club irrigation water was supplied by transferring a drinking water source to the barrier island and then to the golf course. When using potable water purchased from the Town of Palm Beach, The Everglades Club Golf Course had an average monthly water bill of \$20,000.

### Alternative Water Source No. 1: Surficial Aquifer

In order to reduce the irrigation costs to the golf course, the Everglades Club investigated the potential of installing its own well field for irrigation purposes. Hydrogeologic investigations indicated that the Everglades Club could install a shallow, surficial aquifer well field that would supply brackish raw water with a total dissolved solids range of 2,000 to 6,000 milligrams per liter to an on-site, reverse osmosis plant for treatment. The finished water is to be utilized for irrigation of the golf course. The Everglades Club received a permit from the South Florida Water Management District to withdraw 146 million gallons per year total from both surface water and ground water (surficial aquifer) sources.

Topography plays an important part in the surficial hydraulic regime of a barrier island and, therefore, the Everglades Club. Normally, the water table will approximate the topography (contours) of the land surface. The height of the water table above mean sea level is a function of the elevation of the land surface, the nature of the hydrogeology (aquifer characteristics), and the amount of rainfall. The topography of the Everglades Club golf course is relatively low, approximately six feet above mean sea level at the eastern edge of the property. To the east of the golf course is a topographic high (consolidated and unconsolidated sand dune to  $\pm 15$  feet MSL) on which housing and roadways have been

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The top of the Floridan Aquifer is more than 1000 feet below the surface of the Everglades Club.

developed. This topographic high increases the height of the freshwater head between the golf course and the Atlantic Ocean and impedes the potential of lateral saltwater movement from the Atlantic Ocean to the golf course.

The hydrogeologic investigation (which included the drilling of a test well and collection of lithologic and water quality samples) indicated the presence of a really extensive, clay unit, approximately 1-2 feet thick, from a depth of approximately 29 feet to 31 feet below MSL. The clay unit impedes the upward movement of saline water. As is expected on a barrier island, the water increased in salinity (conductivity) with depth. Below the clay unit, the water quality decreased significantly (more saline).

Twelve irrigation wells were constructed along the eastern edge of the golf course and withdraw water from approximately 19 to 29 feet MSL. This water is pumped and treated through a reverse osmosis membrane plant designed to treat brackish ground water with TDS levels of 2,000 to 6,000 mg/L.

The average TDS concentration of the production wells is 1,500 mg/L. This treated water is pumped into lakes for storage and is then pumped from the lakes to the irrigation system for distribution.

The brackish water lens and the well field are monitored by six saltwater monitor wells. The wells are used to monitor for saline intrusion,

both lateral intrusion and upconing of saline water from greater depths.

The RO water treatment plant at the Everglades Club is designed to output (permeate) 75% of the raw water intake. Each RO plant must consider the raw water quality for proper design and efficiency.

In addition, the disposal method of the reject water (concentrate) must also be considered. The Everglades Club currently discharges its concentrate water to a pond for percolation and evaporation near the Intracoastal Waterway. This pond naturally has a higher salinity than the concentrate water. This disposal option is available to the Everglades Club because of its proximity to saltwater bodies. Other options for concentrate disposal in South Florida include infiltration trenches, injection wells, and discharge to a sanitary sewer system. Each option has its associated regulations and costs. Each of these options should be investigated prior to installation of an RO plant.

The surficial aquifer has limitations of use during drought conditions because of upconing and lateral saltwater encroachment. Computer groundwater modeling was performed to assess the limitations of the surficial aquifer. The model predicted that lateral saltwater encroachment would occur after 10 days of continuous pumping with no recharge.

The Everglades Club is able to minimize the potential for the lateral encroachment of saltwater

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by adhering to a 12-hour pumping schedule (12 hours on and 12 hours off). The model also indicated that without proper, self-imposed, well field management, the Everglades Club could potentially alter the water quality by increasing chlorides, sulfates, and TDS through upconing. The Everglades Club has voluntarily monitored water quality and water levels in the monitor wells and the production wells.

**Regional Drought Conditions**

In April 2000, due to regional drought conditions, the SFWMD imposed Phase II (severe) water restrictions in Palm Beach County, among others. These restrictions apply to all surface water and surficial ground water sources. Because the Everglades Club's well field withdraws water from a shallow surficial aquifer, it was included in the restrictions. Due to the uniqueness of the Everglades Club's well field (located on a barrier island with brackish water), the Everglades Club requested from the SFWMD a variance/exception to the water restrictions. The variance was denied based on the reasoning that "under the modified phase 2 water shortage rules, the surficial aquifer system is a restricted source regardless of location, treatment system, or water quality up to that of seawater."

**Alternative Water Source No. 2 - Floridan Aquifer**

In anticipation of water restrictions during drought conditions, the Everglades Club submitted an

application for, and received, a well construction permit from the SFWMD to install one well into the deeper Floridan aquifer. Based on the denial from the SFWMD regarding the variance/exception to the use of the surficial aquifer, the Everglades Club contracted to have the Floridan aquifer well installed. Under the current SFWMD rules, the Floridan aquifer is an unrestricted water source.

No increase in water-use permit allocation was requested, only the transfer of the Surficial aquifer allocation to the Floridan aquifer during drought conditions. This would eliminate the need to utilize the Town of Palm Beach's potable water supply for irrigation purposes during drought conditions and therefore constitutes a reasonable and beneficial use of the state's resources.

At the Everglades Club site, the top of the Floridan aquifer occurs at approximately 1,050 feet below land surface. The water in the Floridan aquifer is brackish, having a chloride concentration of approximately 1,800 mg/L, sulfates of approximately 370 mg/L, and total dissolved solids of approximately 2,900 mg/L.

This water quality is similar to the brackish water from the existing surficial water supply system being treated by the Everglades Club. No modifications to the existing RO plant or discharge will be required.

However, there are minor modifications to monitoring requirements when the Floridan aquifer is being used. Two additional parameters, hydrogen sul-

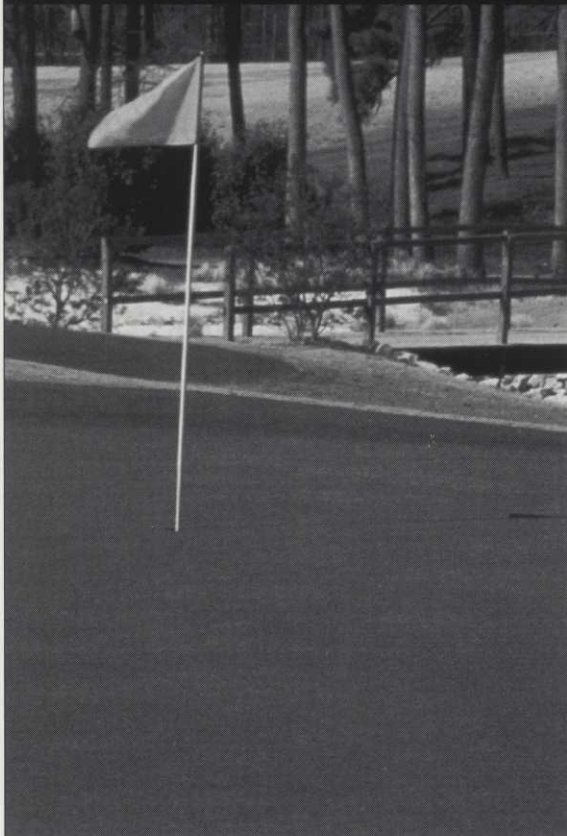
fide and un-ionized ammonia, must be monitored and reported.

The Everglades Club golf course irrigation well field can be operated successfully with a withdrawal rate of 800,000 gallons per day withdrawn from one 10-inch-diameter irrigation well designed to produce 556 gallons per minute. This well was recently constructed and should be on line in November 2001.

**Cost effectiveness**

The Everglades Club was paying \$3.15 per 1,000 gallons for potable water supplied by the Town of Palm Beach. This irrigation water source was costly and subject to mandatory water restrictions. The RO plant was a cost-effective means of reducing the water bill, whether using the surficial aquifer or the Floridan aquifer as the source. The surficial aquifer supplies water for irrigation under non-drought conditions and provided the initial alternative water supply at a lesser cost for installation. However, the surficial aquifer well field was also subject to mandatory water restrictions. The Floridan aquifer well was then constructed at a higher installation cost but has the advantage of not being subject to mandatory water restrictions.

The R.O. water treatment plant at the Everglades Club produces 1,000 gallons of water for \$0.40. Based on the rate the Everglades Club was charged to irrigate with potable water, a 200-acre golf course irrigating 0.20 inches per acre per night (hot,



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To comply with restrictions on withdrawing brackish water from the surficial aquifer during drought conditions, The Everglades Club installed a well into the deeper saline Floridan aquifer to provide water for its reverse osmosis plant to irrigate the golf course.

dry season) would equal a monthly cost savings of \$89,620. Likewise, to irrigate with 0.10 inches per acre per night (cool, wet season) the monthly cost savings would be \$44,814.

**Summary**

The Everglades Club was paying \$3.15 per 1,000 gallons of potable water used for irrigation. The Everglades Club then built an RO plant and constructed its own well field into the surficial aquifer system. Regional drought conditions caused the Everglades Club to adhere to mandatory water restrictions and once again rely on potable water treated by the City of West Palm Beach. The Everglades Club then installed a Floridan aquifer well, currently an unrestricted water supply source.

The water treatment plant at the Everglades Club now produces water at a cost of \$0.40 per 1,000 gallons. The benefits of switching to the Floridan aquifer during drought conditions are that potable water or surficial aquifer water prone to salt water intrusion is not used and the Everglades Club can irrigate during drought conditions.

To date, the Everglades Club has investigated and used all potential water supply sources currently available. The use of each source has evolved as the requirements and costs of irrigation have changed. The Everglades Club has successfully withdrawn and treated surficial aquifer ground water by skimming a brackish water lens on a barrier island. This was

accomplished through proper well field design, installation, monitoring, and management. Through the use of the newly completed Floridan aquifer well, the Everglades Club will be able to keep its greens alive during drought conditions and will have lessened the impact to the surficial aquifers of the state.

**The Suncoast Scramble Began Research Fundraising in 1982**

On March 19th, Joel Jackson and I attended the Suncoast Scramble at Misty Creek Golf Club. A check for \$2,500 was presented to me for the

**BENHAM'S BEAT**



Don Benham

FTGA's Research Foundation. Another check was also presented specially for the Florida Golf Economic Impact Study (see page 40) initiated by WCI Communities through the FTGA.

When I learned that this was the 20th annual Suncoast Scramble, I went to James Svabek, superintendent of Bradenton Country Club to see what information I could find on

the history of this event. Boy! Did I go to the right source. Jim had a complete folder on the scramble.

It was started in 1982 to provide funds for research and scholarship for the betterment of golf. Allen Hanchey, was president of the chapter golf program at Sarasota Jr. College. This teaching program was receiving national recognition for its outstanding program of teaching golf to the students. The Suncoast chapter also wanted to be involved with research funding to the FTGA. This certainly was forward thinking for a local chapter in 1982.

Since I live at the Palm Aire Country Club in Sarasota, I was surprised to learn that the first Suncoast Scramble was held there. Checks were presented to Sarasota Jr. College and the FTGA. Jim Lerner was superintendent of Palm Aire and the tournament stayed here through 1988.

The Scramble moved to River Wilderness in 1989 with Mike Miles as host superintendent; then in 1990 to the River Club with George Cook superintendent and in 1991 to Bent Tree with Tom Biggy as host. The Venice G&CC and Troy Smith, GCS played host from 1992 to 1994. The past seven years (1995 - 2002), the event has been at the Misty Creek CC with Tom Crawford as the host superintendent.

Each year the Suncoast Scramble research tournament has grown till it now fills the playing field to capacity. The last few years they have had to turn away some entries. The format has stayed about the same with a golf superintendent, golf professional, general manager, or board member and a supplier making up each team.

In the mid-90s they decided to add some entertainment to the pre-lunch program. One year they perpetuated a giant hoax on the audience by announcing a speaker from the "Penn State Institute of Turfgrass Development" who proceeded to tell the audience they were releasing a new grass that only needed to be mowed once a week even on greens.

The new grass was immune to disease and completely resistant to all pests including mole crickets. The speaker then proceeded to tell the golf superintendents they should probably start to look for a new profession because even a high school student could take care of the golf course.

Jim Svabek told me he watched jaws drop open and eyes widen as the speaker continued. Jim said it was all he could do to not fall off his chair laughing. Of course by the end of the talk most people realized that they had been bamboozled. From 1996 until now, McCurdy's Comedy Club has provided the entertainment.

What a success story for the Suncoast Chapter. Twenty years of the membership working together to successfully have this tournament each year. Their original purpose has not changed. It is still to support research and the betterment of golf in Florida.

P.S. Congratulations to Greg Richardson (from Hibiscus Golf Club) for a hole in one on the 12th hole at Misty Creek in this year's event.

*Editor's note: This column was written on March 30, before Tom Crawford's death in May. The column celebrates the success and history of the Suncoast Chapter of which Tom will forever be a part.*

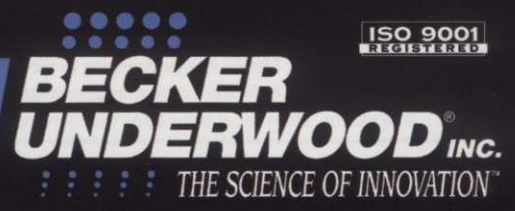


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# Still Behind the 8-Ball!

(But there's light at the bottom of the pocket)

## STEWARDSHIP NOTES



Shelly Foy

Thanks to the wonders of modern technology, I can sit comfortably in my home and watch monthly County Commission meetings on live TV. Talk about bizarre reality show.

I recently watched a parade of 20 or more citizens which included "activists" and normal every day homeowners like you and me come before

the commissioners to convince them the time was right to purchase some environmentally -sensitive land surrounding a local body of water. There were people talking statistics, people talking money, people talking about growing up around this property and how things had changed. Then, one homeowner got up and made the comment, "If we don't do something now, we might as well just give up and let there be wall-to-wall golf courses".

The tone in this homeowner's voice when she said golf courses - you would have thought she was talking about toxic waste dumps. I thought, Well, this is obviously an uninformed person."

Then the reality dawns.

She truly believes golf courses are horrible things, and what's more, there are tons of people just like her. In addition to not liking golf courses, they stand up in front of county commissioners and have no qualms about saying how bad they think golf courses are. No research, no credible information, just a general dislike or distrust.

Over 10 years of environmental research and 10 years of education efforts through the Audubon Cooperative Sanctuary Program for Golf Courses (ACSP), and you know what?

We are still behind the eight-ball.

We have spent all this time trying to educate the golf industry about environmental issues, and how far have we come? I still can't convince more than 260 out of almost 1400 golf courses in my own state to use the best education program available to us (ACSP). If we can't even get it together in our own industry and step up to the plate, how in the world are we going to convince the general public that we are not the bad guys?

Yes, I know that participating in the ACSP is not the only way to show environmental stewardship. However, it is the most widely recog-

nized and industry-supported program we have. Even if you are already doing a lot of positive environmental things on your golf course without the ACSP, what means are you using to promote these efforts?

Audubon International has set a five-year goal of getting 8,000 golf courses involved in the ACSP. We are currently at 2,146, and as mentioned previously, fewer than 260 in Florida.

The time is right for you to get involved with this program and help us to get the word out to people in your community that golf courses and golf course superintendents do care about environmental issues. It will make our message a lot more credible when we can say 1,400 golf courses in Florida are working on environmental programs instead of 258 out of 1400. Perhaps then the day will come when none of us will have to hear people stand up and lambaste an industry that we obviously believe enough in to spend our lives doing it.

Just joining the program is not enough. You need to read and work through the certification workbook so that you will know you are doing the best you can for that property. Saying you are doing it and knowing you are doing it are two entirely different things. That's the bad news. For some good news read on.

### You Can Make a Difference

One person, one golf course, can make a difference when it comes to educating the public about golf and the environment. Jim Schilling, golf course superintendent and his club, Bonita Bay East, are doing their part to educate the public about golf courses and the environment. This past year, they hosted 13 groups at the golf course, including one high school class and 12 elementary school tours.

The high school class was part of a Work Skills Program created to give high school students opportunities to learn about careers available in Southwest Florida. This program is a joint initiative of the School District of Lee County, The Foundation for Lee County Public Schools, Inc., and local business and industry.

Students spent time working with golf course employees to learn "hands on" about things



Bonita Bay East Superintendent Jim Schilling hosts multiple elementary school tours each year and hosts high school students and teachers in education and industry sponsored work skills programs.

like automated irrigation technology, IPM practices, recycling, use of native plants in landscaping, energy conservation, mechanical equipment and overall golf course operations. The title of Bonita Bay East's program was "Sharing the Land" and was developed so that students can learn how a golf course and local wildlife and native plants can exist in harmony.

Another part of the Work Skills Program involves teachers spending a week working with various businesses and industry. Bonita Bay East has participated in this program for many years, and Jim says that this is his fourth year of hosting a teacher for one week. The club pays a \$500 stipend to cover the teacher's workweek. During this week, the teacher learns all areas of golf course operations including IPM, irrigation, and equipment management. At Bonita Bay East, this program also exposes the teacher to the Audubon Signature Program. The teachers then take back all the information they have learned and share it with their students in the fall. According to Jim, "In a sense, the teacher becomes a steward for golf courses and the Audubon Signature Program".

What better way to get the word out to the public about golf and the environment than through teachers and students?

### Wildflower Meadows at Bonita Bay East

Applewood Seed Company in Colorado developed a special blend of wildflower seeds specifically for Bonita Bay East. The company worked with Jim Schilling, superintendent, to develop a mix of seeds that would have a strong chance of reseeding in the Southwest Florida area. There are 15 species in this mix, and according to Jim, some species work better than others. There are 242,000 seeds per pound, a recommended planting rate of 11-22 pounds per acre, and the cost of the seed is \$24.00 a pound. Schilling has planted 3 to 4 acres to date. Benefits of the wildflower areas include:

- No irrigation needed after initial establishment
- No mowing or fertilizers required in these areas
- Creates habitat for butterflies and other insects, as well as turkey, deer, fox and numerous bird species

### Environmental Case Study: Habitat Enhancement

Fred Klauk coordinated a Red Fox Environmental Enhancement project at TPC at Sawgrass to enhance and reestablish the red fox population. They created an environment for fox reproduction by building a steep bunker face in an out-of-play area to improve habitat and prevent disturbance by golfers.

They met their goals of providing suitable habitat and increasing the native fox population. They did have to reroute cart traffic away from the bunker to prevent disturbance and they marked the area with signs so the golfers would know what was going on.

The results were great! The foxes have reproduced every season.

Both golfers and employees have enjoyed this habitat enhancement project. Surprisingly, the report is that even hosting the Players Championship has had no effect on the mating foxes.



*Wildflower Meadows at Bonita Bay East. Benefits of wildflower areas: No irrigation needed after initial establishment. No mowing or fertilizers required in these areas. Creates habitat for butterflies and other insects, as well as turkey, deer, fox and numerous bird species.*

**One More Reason to Be Proactive**

*(Editor's note: Judge the credibility of the source for yourself, but this is the kind of material that is getting published and broadcast. Shelly shares this information as a wake-up call for the golf industry)*

A recent report called States of the Union: Ranking America's Biodiversity, prepared for the Nature Conservancy, has some disturbing news for Florida. The report looks at 21,395 known native plant and animal species in the U.S. and ranks the species at risk.

How does Florida measure up in this Study?

- 14.3% or 624 of 4,368 of our native species are threatened by extinction

- 3rd in the US in percentage of reptiles at risk
- 4th in percentage of birds at risk (Only three other states have a higher percentage of birds at risk than we do)
- 6th in the nation for plants at risk
- In the middle, as far as overall fish species that are endangered.

We all know that the big threats are coming from habitat destruction and degradation. A major problem we have in Florida comes from the spread of invasive species, which are choking out our natives. Golf courses in Florida have an excellent opportunity to recreate some of this lost habitat. There is a lot of "how to" information available on this from both Audubon International and the USGA.



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Growing Solutions in Turf



Mark Jarrell at Tabacon Resort in the shadow of active volcano Arenal. While it hasn't had a major eruption in many years, four people were killed while observing the volcano up close in August 2000. Jerry Redden, outclimbing his out-of-shape partners, made it more than halfway up Arenal in 1996 before the venting gases and tinkling lava rocks falling about him caused him to reconsider the wisdom of our adventure and contemplate the meaning of the words "active volcano."



A typical school house. The children all wear uniforms and are neat and clean despite walking along dusty roads. Note the soccer field. Every town has a school, a soccer field and a Catholic church. Three towns actually had basketball courts.



The pool at Tabacon Resort, which is filled with water heated naturally from springs flowing from the Arenal volcano.

## The Fifth Step in Renovation

In April, Kevin Downing, CGCS, Willoughby Golf Club, and I found ourselves facing major summer reconstruction projects. Kevin was going for a complete 18-hole renovation, while I was looking at rebuilding and replanting ten greens to TifEagle. The long, hot summer ahead of us convinced us to insert one more step in the reconstruction process: take a week off and seek adventure and relaxation in Costa Rica before the work begins!

Costa Rica is an incredibly beautiful, diverse, and friendly country. This was Kevin's first visit and my second, having traveled there six years ago with Jerry Redden, CGCS, and Mike McLaughlin. Costa Rica has become a favorite destination for many Americans and Europeans, from "eco-tourists" to those hoping to land a record black marlin in the Pacific off the coast at Quepos. As a change of pace from my usual column (and because

### MARK MY WORDS



Mark Jarrell, CGCS

I can't write poetry like Joel Jackson), I thought my peers might enjoy a photo journey to this amazing country.



*This was the highlight of the trip. This adrenaline rush at Monteverde is called Sky Trek. You are given a small harness, helmet, gloves, safety line, and pulley to go flying over and through the rainforest on eleven different cable runs. In this photo, Kevin Downing is seen arriving on the first "bunny" run designed to ease your jitters and instill confidence that you haven't lost your mind for paying \$35 to produce a heart attack.*



*The Pacific Ocean south of Dominical, a sleepy little surfing town. A larger town to the north, Jaco Beach, is also popular with American surfers. If you're not into surfing, you can ride horses along the beach.*



*Even though it was the dry season, there was still enough water flowing from the mountains to the oceans to provide picturesque scenes like this and an exciting whitewater rafting adventure on the Rio Toro. As of this writing, I still haven't received the photos of the rafting trip I paid for, which may be the only negative thing I can say about our entire visit to Costa Rica.*



*A view of the dry countryside on the rocky road from Arenal to Monteverde. Costa Rica receives as much as 150 inches of rainfall a year, but April is the driest month. Their tourist season is similar to Florida's - most visitors have left the country by the end of March. It was interesting to note full staffing at the various hotels despite being "off season", with staff sometimes outnumbering guests.*

## 2001 FLORIDA GREEN PHOTO CONTEST • CATEGORY 4

*Scenic Hole Category 4 - includes sunrises, sunsets, frosts, storms or any other interesting view of a golf hole.*



1st Place - Rainbow's End by David Bailey, CGCS, Turnberry Isles C.C.



2nd Place - The 9th Hole by Tom Trammel, CGCS, Hawks Nest G.C.

### Contest Categories

**Category 1 - Wildlife on the Course:** includes mammals, birds, reptiles, amphibians and insects.

**Category 2 - Formal Landscape:** includes annual beds, shrubs, trees, and entrance and tee sign beds.

**Category 3 - Native Landscape:** includes native plant beds, aquatic vegetation plantings, natural areas and any other use of native plants on the course.

**Category 4 - Scenic Hole:** includes sunrises, sunsets, frosts, storms or any other interesting view of a golf hole.

## 2002 Florida Green Photo Contest Rules

### Easy Rules

1. Submissions for judging must be a color or black and white photograph or a slide. No computer print outs of digital photos will be accepted. Only one entry per category. Don't make us choose.

2. Photo must be taken on an FGCSA member's course and taken by the member or a member of his/her staff.

3. Attach a label to the back of the photograph which identifies the category, course and photographer. Do not write directly on the back of the photograph. Attach the photo or slide to a piece of 8.5 x 11 sheet of paper with a loop of masking tape for easy removal for handling.

4. A caption identifying the category, course and photographer should be typed or printed on the paper below the photograph.

5. Judging will be done by a panel of FGCSA members not participating in the contest.

6. Mail entries in a bend proof package/mailed to Joel Jackson, 6780 Tamarind Circle, Orlando, FL 32819. Deadline for entries is August 1, 2002.

### Prizes

1. 1st Place (\$100). 2nd Place \$50 in each Category

2. Editor's Choice - Best Overall Photo - \$100

3. All winning entries will be published in the Florida Green.



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For me the wake-up call came March 1, 2002. It happened in the NBC Sports compound during the second round of the Genuity Championship at the Doral Resort.

The South Florida GCSA provides the scorers and spotters for NBC during the event, and my wife Susi and I coordinate all those who graciously volunteer their time. Plus, its pretty cool for avid golfers to be inside the ropes with the big boys at the big show.

It was early, about 1:30 pm, and there were a half dozen or so of our people who had arrived. I was being my usual vitriolic self and was taking the "Mickey" out on one of the lads. I saw him make a face at something I said, so I quickly and truthfully told him "I was only kidding." I said, "People always take me so seriously

a month and provides 60 movie channels, all showing the same 30 movies month after month

2. I hate living in the most populous county in Florida and having one of the worst newspapers in the country, particularly the sports section. It's not worthy of gracing the bottom of a birdcage.

3. I hate all of these ordinary restaurants who think they are so wonderful that they do not take reservations. Although, one of them is now doing TV ads for phone-ahead seating, so you only have to wait 30 minutes after you arrive instead of an hour.

4. I hate the traffic in Dade and Broward counties and the terrible drivers who use our roadways. I especially hate young males in Honda Civics that are 2 inches off the ground, with stupid sounding mufflers and tires sticking out 6 inches beyond the wheel wells. They race around like they're in a Porsche.

5. I hate all the local TV stations that sensationalize the news in an effort to outdo the others for your viewing time every late afternoon with their pompous, self-righteous newscasters and live remote reporters bringing me up-to-the-minute information on things I care nothing about. I treat them all equally and do not watch any of their broadcasts except the weather.

6. Local radio stations get the same low marks as their TV counterparts, with the exception of WDNA. Miami and South Florida are so bush they allowed our only classical station to go off the air. WTMI left the air because it could not sell advertising time. So, a two-county area with four million people does not have a classical station.

7. I hate the Miami Dolphins whom I supported from day one, when George Wilson, Sr. was the head coach and his son George Jr. was the quarterback, until they moved to Joe Robbie Stadium. Seems the 25 years of loyal support meant nothing when it came to seat assignments in the new digs. Let's see, double the ticket price, parking and refreshments, and by the way, your seats which were on the 50-yard-line at the Orange Bowl are now on the goal line on the wrong side of the stadium. So for 1 p.m. games you melt in the September and October sun. Hey Joe, put it where the sun never shines!

8. The Miami Heat, whom I have rooted against since their first season. They pulled the same kind of deal on me, Willie Ray Blood, Dr. Funkenstein, and Jeffie the Duke Preppie. We were priority No. 148 and should have been able to choose just about any seat at the Arena, but how could they do that and accommodate all the "suits" and their law firms, banks and brokerage houses downtown. So when they said a computer was going to pick everyone's seats, (and I've got a bridge for sale in

Brooklyn) we said, "Give back our deposit money."

"Oh, we can't do that. Unfulfilled deposit money will buy tickets to games for underprivileged children. (I was just about to call you). We thought about suing but none of our lawyers would take the case. Season ticket holders one and all I assume.

9. While we are on the subject of sports let's not forget the functionally illiterate athletes who are raking in millions to play baseball, basketball and football. These guys want to make enough money by age 30 to take the rest of their lives off. It doesn't matter that the average family cannot attend one of their games for less than half a car payment. It's just "Show me the money baby!"

10. Let's file the entertainment industry while we are at it since sports is being referred to as entertainment these days. What's up with these people getting millions to film a motion picture or do a TV series? Most of the stuff on TV is no more than pabulum for the masses and I know there is not a dozen movies released each year that can keep me awake for more than 30 minutes. And remember, in most cases, money is no object getting these projects completed. You would think they could come up with better stuff than they do.

11. I saved the things I hate about golf for last. I hate weeds. Broadleaf weeds, grassy weeds, all types of weeds. I hate sedge. Yellow, purple, pink and green.

I hate fungus. Rhizoctonia, brown patch, pythium, helminth, fairy ring, grey and pink snow mold, all of them.

I hate insects. Mole crickets, webworms, bermuda mites, grubs, earthworms, and all the stinking rotten nematodes.

The thing I hate most about golf however, are the chronic malcontents who play our beloved game. Thank God they are in the minority.

You know these guys — the greens are too hard, the greens are too soft. The greens are too slow; the greens are too fast. The fairways are too long, the fairways are too short. The traps are too hard, the traps are too soft. The rough is too long, the rough is too short.

What's wrong with the greens? What's wrong with the fairways? Why are you always verticutting, aerifying, and top dressing? What are you spraying today? You know I am allergic to everything except my silk suits, leather seats in my Mercedes and money.

In 1956 I became addicted to the game of golf. I was hooked the first Sunday I carried my uncle's bag at Miami Springs Golf Course. By age 16, my scores were 70-75. That wonderful ability to score so well lasted into my thirties and afforded me meeting a varied cast of characters. There was George "Dogman" Butler, Skinny Henry "The Diver" who was obviously in the golf ball recovery business. I remember Tony

## Geez, What A Grouch!

### AS IT LIES



Jim Walker

when I kid around. I don't know why."

The fellow I had been good naturedly ribbing said, "You're kind of a grouch so a lot of people don't know when you are joking."

Susi was all over the comment like a hundred pound tarpon going through a school of finger mullet, "I've told you that you are a grouch so many times, but you never believe me. Now maybe you will!"

The other lads piped up and a fairly lengthy discussion ensued. I watched the branding irons heating up on the hastily built fire. Beads of sweat popped out on my forehead. After 57 years on this earth I was about to be permanently marked as a grumpy, grouchy guy.

As the smell of burning flesh dissipated and the branding irons cooled in the shade of a production trailer, I began to take stock of my now "official" labels, pondering if I was indeed grumpy and grouchy and, if so, what had driven me to such heights or depths? I decided I had better come up with some good reasons for my newfound claim to fame.

I initially thought to ask some of my closest friends if they agreed with the kangaroo committee, but they are all congenital liars and would never tell me the truth. Telling me the truth might hurt my feelings and they would not do that to me. So, the following is a list of things that have, over my lifetime, contributed to my being grumpy and grouchy:

1. I hate my cable company who charges \$100.00

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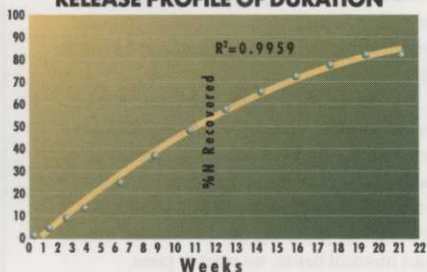
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"Silk" and all his pals from Chicago and Detroit who came here for the winter season. Tony and his friends could not break 80 very often which led to much bickering about how many strokes they received while we tried to separate them from their cash laden wallets.

My favorite, however, was Gene Clapp. Gene was a mountain of a man, 6-6, 275 lbs. and could hit it out of sight. Gene liked playing partners with me because I was very steady. Our bank accounts got very healthy every winter. I am sad to report the Gene was killed by lightning while playing at Miami Springs in the early 80s. God took the wrong guy that time. He was a wonderful human being.

So maybe I am a little grumpy and grouchy, so what. While I was writing this bit, Craig Perks won the PGA Players Championship. In what other sport can the 203rd-ranked player in the world win such a prestigious event? I love this game. Don't you?

Column writers often get desperate for ideas and I want you to know I don't really have all that much spare time to sit and contemplate the ambulatory habits of the avian community, but I did get a flash. With all the hopping, running, waddling and strutting, birds may share their common ability to fly, but they definitely have different styles when it comes to hunting food on the ground. They share in the common need to hunt and eat, but they do it in different ways. That's when the column idea clicked in.

Golf course superintendents share a common love for the outdoors, working with nature and the game or business of golf. They also share the lofty responsibility to present the best playing conditions possible under the given circumstances of their individual clubs, and they would all like to have reasonable job security. Just like the birds on the ground they have different ways of achieving their results.

Some superintendents are super agronomists with green thumbs firmly on the button that makes turf-grass spring from the ground at a moment's notice. Others are fantastic golfers in their own right with a complete understanding

of how to coax superlative playing conditions out of the turf regardless of conditions. Still others are great planners and organizers who are able to maximize the resources and talents of the club to produce a good golf course. Of course the ultimate goal is to have enough of each of these traits to be a successful superintendent.

They say that birds of a feather flock together, and in bird land that might mean the blue jays and mockingbirds all hang together as separate species. Maybe they can fly, but they only know one way to get it done on the ground. In the golf world, birds of a feather mean that regardless of style and methods, successful superintendents also flock together. They gather at chapter meetings and turf conferences and they talk to each other back at home too, helping each other by sharing solutions to common problems.

If you want to be a better superintendent, then wing it on over to the next chapter meeting, and feather your nest with some education and new friends in the same business. Learning different ways of doing the same basic things is what keeps our profession so interesting. So no matter whether you hop, run, waddle or strut on the ground, you can be a high flying success by joining the flock, gaggle, covey or whatever.

**It Has Been a Rough Year**

Our profession has suffered another tragic loss this year with the accidental death of Chip Fowkes of The Fountains Club in Lake Worth. I worked with Chip on a couple of projects over the

years and typical of his involvement, he took the time recently to send excerpts from his long-range and maintenance-standards plans to share with others in the Hands On section of this issue.

Flemming W. "Chip" Fowkes III, 47, was killed in a motorcycle accident, June 28. Originally from Pittsburgh, Pa., Fowkes had lived in Florida for the past 44 years.

For the past two and a half years he was the director of horticulture at the Fountains Golf Club in Lake Worth. Before going to the Fountains, Fowkes was the director of horticulture at Frenchmans Creek C.C. from 1995-2000, superintendent at Emerald Dunes C.C. from 1990-1995 and assistant superintendent promoted to superintendent at PGA National.

He is survived by his wife Helen R. Fowkes and daughter Kalei, 11; his parents Flemming W. and Betty Fowkes Jr. of Port St Lucie; sister Susan Fowkes Skinner and her husband Dean O. Skinner of Port St Lucie; nieces Sarah and Molly Skinner of Port St. Lucie.

Fowkes was a graduate of the University of Florida and also attended one year at Lake City Community College. He served on the board of the Palm Beach GCSA where he was the external vice president from 1995-1998 and president 1998-1999. He also served as a director on the FGCSA board. He was a member of the FTGA and the GCSAA for the past 18 years.

"Chip had a great passion for water sports; boating, fishing and surfing," said David Court, CGCS, FGCSA vice president. "I remember Chip best for a presentation on how to sell a project to a board of directors using Power Point programs on the computer. He was always on the cutting edge of technology using the newest and best equipment, and products available for the job. He always kept a great golf course both in looks and playing conditions."

"Chip was well-liked and a superintendent who contributed to his profession through service and involvement with his professional organizations," said Mark Jarrell, CGCS. "I had lunch with him about two weeks before his passing and learned he was also musically talented; he had a band while at UF, and he recited a 'rap' song he had written while a student there, long before rap was popular — it was quite good. He was a friend and he will be missed."

Every loss is tragic, but to lose two of those special people who step forward to lead in a few short months has been especially hard on all of us. God bless the families of our friends who have left us too soon. My thanks to David, Mark and Steve Pearson for gathering this information literally at the last moment before we went to press.

Contributions can be made to the Chip Fowkes Memorial Fund c/o Banks Atlantic, 520 Toney Penna Drive, Jupiter, FL 33458.



Chip Fowkes

# Blue Jays Hop, Mockingbirds Run: This column is for the Birds

**GREEN SIDE UP**



Joel Jackson, CGCS

The other day while walking through my living room, I glanced out the window and a blue jay swooped into the ash tree in the front yard. I stopped and "bird watched" to see what he was up to. The jay glided into the driveway and began chasing and eating ants, hopping after them like he was on a pogo stick. It was a two legged hop, and I could hear the sound effects going... boing, boing,

boing.

Then a mockingbird landed on the nearby mailbox, eyed the blue jay, and then after flicking its tail a few times flew across the street into the neighbor's yard. The mockingbird ran forward in a quick-step scurrying fashion almost like a mouse scampering along a baseboard. It stopped flashed its wings with their bright white bars to scare a bug into moving, and then sprinted a short distance and repeated the wing thing.

A purple grackle landed nearby and began his swaggering, waddling stride up the sidewalk looking for insects. No sooner had he joined the parade of avian scroungers than a pair of mourning doves landed and began their pigeon toed, chicken strut with their heads bobbing front-back, front-back with each step like a child's pull toy.

# It's hard to beat the performance of TMI turfgrass varieties!

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## VIP3

Turf Type Perennial Ryegrass

Compare test results of proven overseeding grasses and you'll notice similarities. V.I.P. 3 Turf Type Perennial Blend is a combination of quality and performance...and at an amazingly affordable price. Contains #1 ranked varieties. Available in specific overseeding formulations. Varieties chosen for outstanding ease of transitioning, and genetic dark green color. Contains endophytes.

## PIZZAZZ

TURF TYPE PERENNIAL RYEGRASS

PIZZAZZ promises to set the standard for the next decade. Its dark green color and dense turf make it an attractive choice for parks, home lawns and golf courses. Clonal selections contained high levels of endophytes, and this synthetic variety is lower growing than many older varieties.

## PARAGON

PERENNIAL RYEGRASS

Paragon is in a class all of its own. In fact, we are so certain that you will want Paragon in your turf program because of its superior turf qualities, we have taken measures to ensure that once you see Paragon for yourselves that you will be able to readily get seed for this coming fall season. It's that good. Better color, finer texture, improved disease resistance. Paragon - the professionals choice.



Private and university trials have shown Cypress to be a premier overseeding grass. Cypress Poa trivialis establishes fast and can be cut close immediately, even after overseeding. As your Bermudagrass goes dormant, Cypress will provide the finest dark green putting surface with no interruption in play. Cypress is tolerant to shade and damp soils. This unique prostrate growing variety thrives in cool weather and will survive cold weather that will damage Turf Type Ryegrasses. But most important, Cypress will maintain its dark green color all winter long. As the weather turns hot in the spring, Cypress will die out naturally as your Bermudagrass begins to grow. Cypress will not choke out your Bermudagrass in the spring as some heat tolerant Perennial Ryegrasses do.



TMI has spent years developing StarDust to be more disease resistant and is one of the darkest commercial Poa trivis for better color matches with some of today's darkest green ryegrasses. University overseeding trials in Florida and Arizona have shown StarDust is setting the next standard that other Poa trivis can only hope to achieve!



Created to meet the specific needs for seeding athletic fields, lawns, and golf courses. Establishes quickly and performs well under moderate to low fertility. Barracuda will grow under a greater variety of conditions than other grass seed, even on soils very poor in lime. Barracuda is a perennial grass with a creeping habit of growth, darker green than common redtop. Drought tolerant, dense turf with excellent mowing qualities.

## Perfecting Turfgrass Performance.™

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