



# The Florida Green

Summer 1997



11th and 12th Holes  
Sailfish Point, Stuart.  
Photo by Daniel Zelazek



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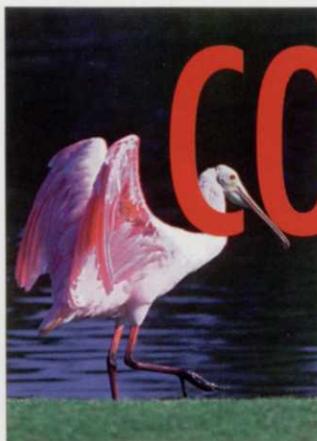
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As I write this final president's message I can't help but have mixed emotions. I have always had trouble writing these messages and I am relieved that this is my last one. But, I have enjoyed this past year as president of the FGCSA and hope to continue to serve the association in some capacity for many years to come.

I want to thank Joe Ondo, Mike Perham, and Greg Plotner for their support and help during my term as president. I also want to thank Joel Jackson for his advice and patience with my always-late president's messages.

The person I need to thank the most during this year is Marie

Roberts. I couldn't imagine running this association without her. I want to wish Joe Ondo good luck next year during his term. Joe will make an excellent president and help move our association to the next level.

During my term as president the FGCSA has continued to grow and become stronger. We finished the GCSAA affiliation process along with most of our chapters. This ensures that Florida will remain a leader and have a strong voice in national issues.

We have also strengthened our ties to the FTGA. Kevin Downing is now co-chairing the FGCSA research committee and the FTGA awards committee. This will help better coordinate our research funding.

During this past year we also funded a public relations video. Darren Davis has

done an excellent job producing this video. I am sure all of you will find it to be a valuable resource.

Looking towards the future, we are laying the groundwork for a FGCSA web page. This will provide a place for better and more timely communication with our members and possibly give us a chance to educate some of the general public.

On a more somber note, this past May Tom Mascaro died at the age of 81. I consider myself very lucky to have known this great individual. Tom Mascaro was an innovator all his life and the golf course industry will sorely miss him. The South Florida Chapter meetings won't be the same without him.

I will always remember Tom's advice. He never ceased to amaze me with his insight and perspective on the golf industry as a whole. Tom advocated that superintendents should be more visible at their clubs. He thought that the superintendent should have an office in the clubhouse. He always said it was better to receive criticism directly as opposed to having the golf pro or others fighting your battles.

Tom also stated that superintendents should take on any job or project that is asked of them and volunteer even when the project isn't related to the golf course. The more you are responsible for at your club, the more indispensable you become. Tom spent his life fighting on behalf of golf course superintendents. He always stated that the superintendent was the best asset any club had.

Tom Mascaro is an individual that I will never forget, and I am sure that everyone else that has ever met him will agree that his passing was a great loss to us all.

# Of Thanks and Remembrance

## PRESIDENT'S MESSAGE



Dale Kuehner, CGCSA President FGCSA

# Perfect Partners.

## Aliette® T&O and Thalonil™

Get the team that stands strong against summer stress complex—Terra® Aliette® T&O and Terra® Thalonil™. This partnership provides the one-two punch you need to protect turf inside and out. It starts with the systemic action of Aliette T&O. Since it's translocated throughout the plant, turf gets top to bottom protection against Pythium blight and root rot. On the outside, Thalonil sticks to the job of keeping turf safe from brown patch, dollar spot, leaf spot, snow mold, algae scum and many other diseases. Plus, university tests across the country have proven that there is no difference in

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*The Hands On section is one of my favorites because it is written by superintendents.*

**Writing Articles**

I don't know many superintendents who do not read the Florida Green from cover to cover. All of the articles and information keep us informed of past, present and future activities happening around the state.

The Hands On section is one of my favorites because it is

written by superintendents and is one we can all relate to. Joel is always looking for people to write articles so don't hesitate if you have something to share with your fellow superintendents. It can be on any subject you would like to write about or on the one chosen for that issue.

Look in the back of this issue for the "Call for Articles" section and see all the topics. I have written a few articles over the last couple of years, and once I sit down and get started thoughts and ideas seem to keep coming into my head.

Remember, this is our magazine, so whatever information you can contribute is sure to be of benefit to someone. The main idea is to share

our experiences. Let the editor worry about style, grammar and punctuation.

**State Team Championship**

Plans are being made for the second Florida Chapter Team Tournament. This tournament has been organized to help determine candidates for the team to represent Florida in the annual GCSAA Golf Championship. In the past we used the winner of the FTGA tournament. The FTGA event has now gone to a scramble format and no longer has individual stroke play competition.

A chapter may send five players, with the best four of five counting for your team. Individual superintendents can participate even if they are not on a team. The overall low gross superintendent will get his entry paid on the Florida team at the 1998 GCSAA Golf Championship Tournament in Anaheim if he plans on participating next February.

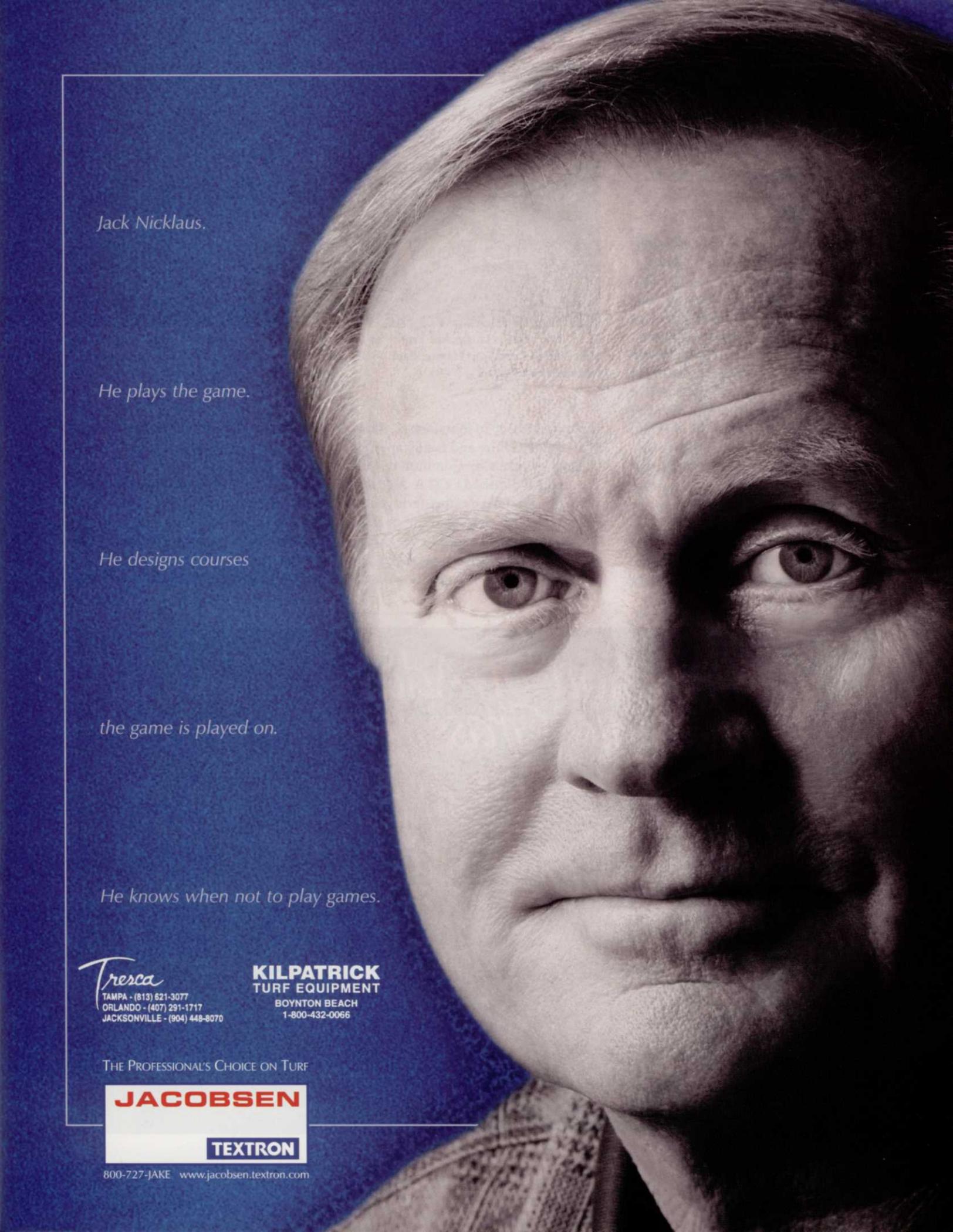
Southern Dunes has agreed to serve as host course again this year. The state tournament is tentatively scheduled for September 20, 1997. More information will follow, so makes your plans to attend now!

*Strokes...  
with Pen  
and Club*

**FORE**



Joe Ondo, CGCS  
Vice President  
FGCSA

A close-up, black and white portrait of Jack Nicklaus, looking directly at the camera with a serious expression. The background is a dark blue gradient.

*Jack Nicklaus.*

*He plays the game.*

*He designs courses*

*the game is played on.*

*He knows when not to play games.*

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## Class of '81 Dominates LCCC Tourney

The Fifth Annual Lake City Community College Endowment Golf Tournament held at Lexington Country Club was very successful again this year! Our hats are off to Mike Dillinger, GCS, class of '82, and his staff for a job well done.

The class of '81 walked off with the top honors. In the A Flight, Glenn Zakany of Golf Ventures and partner Jim Osburn of Cape Coral CC walked off with bragging rights and the trophies. In the B Flight, Scott Zakany of International Golf Management and partner Todd Wiggington of Admiral Lehigh Resort were top dogs for the day. But the big winner was the Endowment Fund.

At this year's LCCC alumni gathering in Las Vegas, David Fry, tournament co-chairman, presented a check in the



LCCC Tournament Committee: Front row from left, Matt Brock, Dick Bessire, Odell Spainhower, Matt Dillinger and Scott Hamm. Back row, David Fry, Glenn Zakany and John Johnson. Not pictured, Brad Walters.

amount of \$9,100 to John Piersol, chairman of Golf Course and Landscape Operations at Lake City Community College. John indicated LCCC is \$200,000 away from reaching its short-term goal of \$500,000, with a long-term goal of \$1,000,000. In addition, Mike Lee, Foundation director, has been working diligently to match new money raised with

state funds. The state will contribute four dollars for every six dollars raised for the endowment.

Next year's tournament is tentatively scheduled to be held at Lexington Country Club on Friday, January 9. It was apparent after hearing feedback from both players and club management playing 150 golfers just took too much time

## George Elliott of Addison Reserve Uses Georgia Grass on His Greens

### Here's Why!

"I first visited Millhaven Plantation when I had to renovate the greens at Mayacoo Lakes Country Club back in 1993. I was very impressed with the quality of their Tifdwarf and had them send me down a batch of sample sprigs. The samples looked good, so I ordered 3,000 bushels of sprigs to renovate 18 greens. We hydro-sprigged those greens and were playing on them in less than 7 weeks. Here at Addison Reserve we already have 18 greens in place, and we're putting in another 9 - all certified Tifdwarf from Millhaven. We also used Millhaven's Tifway on most of our fairways. I think the entire course looks and plays great."

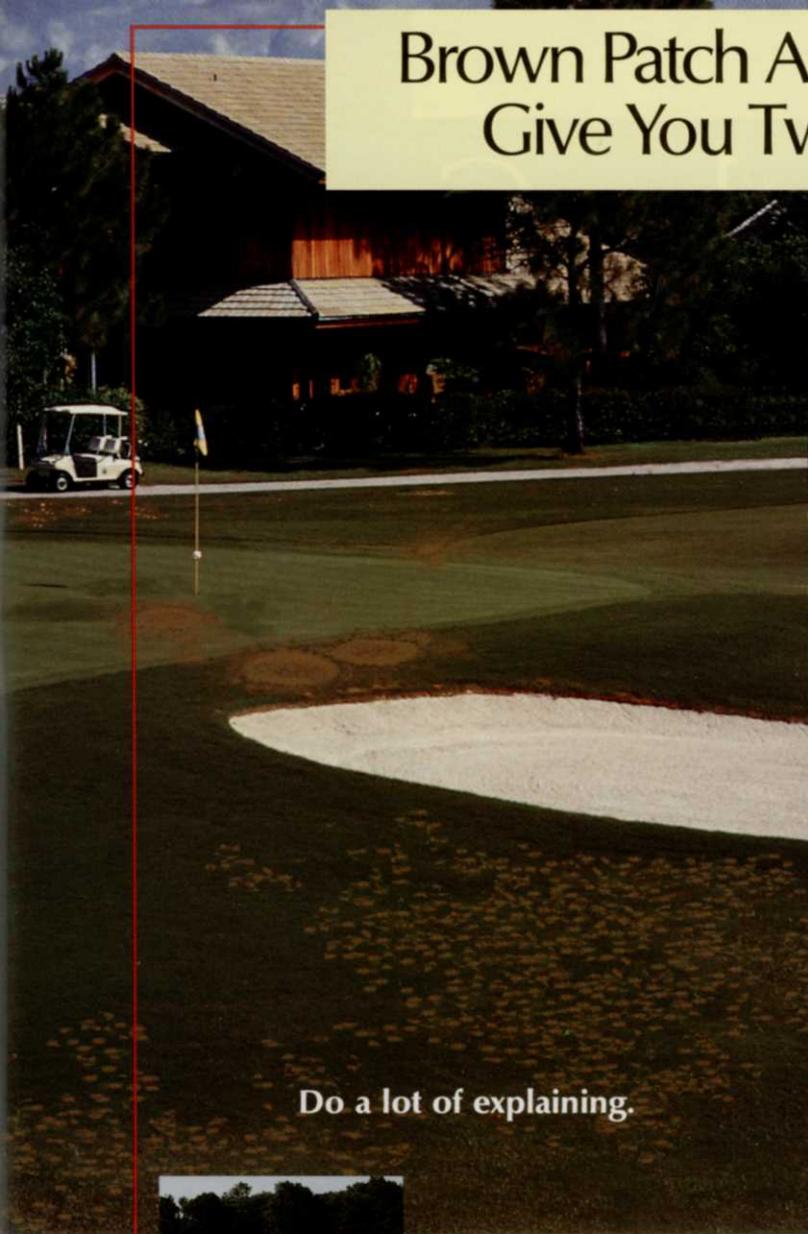


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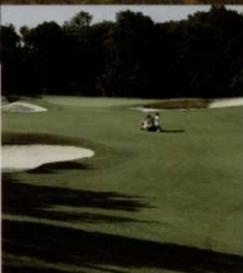
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HERITAGE has a novel mode of action which is different than any other fungicide now on the market. It has both preventative and curative activity and is absorbed into the leaf blades and stems

as well as taken up by the roots. This ensures that your golf course is protected from the devastating effects of turfgrass diseases.

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— approximately six hours. To speed up play next year, the field will be limited to the first 130 paying participants. Reserving a spot without payment will no longer be accepted.

*By working together,  
your support and  
involvement can  
enable LCCC to  
continue to support  
academic excellence in  
the turfgrass industry*

Even if your company was unable to provide a sponsorship in this year's tournament, the committee certainly looks forward to regaining your support in 1998. By working together, your support and involvement can enable LCCC to continue to support academic excellence in the turfgrass industry and provide a valuable resource for professional turf managers for years to come. The tournament committee sends out special thanks to all the Diamond and Gold sponsors for their support.

*See you next year!*



*Pine Barrens G.C. Photo by Grady Miller*

### **Serious (Fun)draising Envirotron Classic raises \$45,000 for UF research facility**

This past April the Seven Rivers Chapter did it again! Glenn Oberlander, Stuart Bozeman and host superintendent Steve Hritsko spearheaded the event which garnered approximately \$45,000 for the Envirotron research facility located at the University of Florida. This five year old event has become the Envirotron's leading fundraiser and is supported more and more by individual chapters through donated entry fees.

The leading supporter though has to be Barbaron, Inc. of Crystal River. This

golf course development company topped the sponsor list for the second year in a row with a gift of \$12,500. The owners of the company, Ron Kitchen, Sr., Ron Kitchen, Jr. and Terry Lagree are to be commended for their vision and confidence in the success and value of what the Envirotron can mean to the future of golf turf management research.

Winning teams of the scramble format event were: Pine Barrens - Low Gross Team: Sam Anderson, Larry Carlson, Bill Reynolds and Mark Revelia with a 56. Low Net Team: Ron Bear, Whit Derrick, Bruce Orr and Rick Wahl with a 59.875. Rolling Oaks - Low Gross Team: Jennifer Adams, John Adams, Scott Fraser and Dale Reash with a 57. Low Net Team: Joe Clay, Bill Fowler, Jack Harrell, Jr. and Tim Orten with a 57.875.



*Rolling Oaks G.C.  
Photo by Grady Miller.*

# THANK YOU!

## **5th Annual LCCC Endowment Fund-Raising Golf Tournament Lexington Country Club**

The Tournament Committee would like to thank all of the sponsors that support this event. These businesses have made an investment in tomorrow's turf industry and it is greatly appreciated.

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# Blue Pearl '97

BY SHELLY FOY

*USGA Green Section, Florida Region*

In their four years of hosting the Blue Pearl Tournament at Loblolly Pines Golf Club in Hobe Sound, members of the Treasure Coast Golf Course Superintendents Association have put more than \$45,000 back into their communities.

The first year, they gave \$10,000 to the Treasure Coast Wildlife Hospital. In the past three years, funds raised by the Blue Pearl Tournament have been donated to the Audubon Cooperative Sanctuary Program for Schools. From adopting schools into the program, to buying books for libraries, to funding environmental projects at local schools, to even serving on school committees, the TCGCSA is making a difference for environmental education in schools.

The association's goal is to create a String of Pearls across the country by challenging other superintendent chapters to host Blue Pearl Tournaments to raise money for schools. They are well on the way, with several chapters across the country now planning Blue Pearls.

Blue Pearl 97 had some special guests in town for two days of events:



*Third Annual Helicopter Hole-In-One sponsored by the Hobe Sound Women's Club. Helicopter donated by Greg Norman drops numbered golf balls purchased by participants. Closest to the pin wins! Photos by Shelly Foy.*

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- Ken Mangum, director of golf and grounds, Atlanta Athletic Club and a member of the GCSAA Board of Directors;
- Rod McWhirter, national specifications manager, Rain Bird Golf Irrigation;
- Lee Mangum, manager, Audubon Cooperative Sanctuary System, Audubon International;
- Kristi Frey, marketing specialist, GCSAA;
- Teri Harris, director of communications, GCSAA;
- Jeffrey Litrenta, writer/producer, EPIC of Wisconsin, Inc.;

GCSAA, in partnership with Rain Bird, are sponsors of the Audubon Cooperative Sanctuary School Program. The dignitaries were in town to see for themselves what has been going on in the Treasure Coast with superintendents and schools. They interviewed at least 17



TCGCSA President Dick Gray presents a \$12,000 check from the '97 Blue Pearl to Audubon International for its School Program. Photo by Shelly Foy.

people, and got lots of footage from the Blue Pearl for an upcoming Par for the Course show on June 21st.

During the two days of events, the special guests took a tour of the first fully certified Audubon School Sanctuary, Hobe Sound Elementary. It was a good opportunity for them to see first hand how schools and superintendents work together on environmental education projects.

Then, Rob Kloska, GCS, and his staff at the Jupiter Island Club hosted 31 fifth graders from Hobe Sound Elementary and guests for a tour of the golf course. The tour also tied in with Career Week at the school. The students had the opportunity to meet various other staff members, such as the assistant superintendent, mechanic, irrigation technician, and general manager. Highlights from the golf course tour:

Soap Flush for mole crickets — the boys loved it, so did most of the girls .

Computerized Irrigation — Rob explained how the system worked, then demonstrated by having the kids watch No.18 fairway while he programmed the system to come on via radio.

Excitement was evident on the kids' faces when discussing wildlife, particularly when they saw the incubator for the ducks.

There were several good questions from students on equipment washdown, pesticide storage, and even an interesting discussion of a reverse osmosis plant Jupiter Island plans to build.

My favorite comments about the field trip:

"In my 20-something years of teaching, this is the most informative field trip I have ever taken a group of kids on." Sandy Pisano, 5th grade teacher

"This is the first time I've ever been on a field trip where they gave us a soda!" David Hebb, 5th grader

On Friday evening, the TCGCSA hosted a casual dinner for 50 at the Jupiter Island Beach Club. Guests, superintendents, teachers, school administrators and kids were all on hand for a lovely dinner outside, with the ocean as our backdrop and osprey flying overhead.

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*The association's goal is to create a String of Pearls across the country by challenging other superintendent chapters to host Blue Pearl Tournaments to raise money for schools.*

EPIC Productions was on hand to film interviews with those involved in the Blue Pearl Tournament and the Audubon School Program.

The Blue Pearl 97 tournament was a huge success. The tournament field was sold out a couple of weeks before the event. A total of 144 golfers tested their skills against Loblolly Pines Golf Club and Fred Hinkle's challenging hole locations. For this four-man scramble, winning scores of 53 and 54.5 were posted in the gross and net divisions.

I have had the pleasure of working directly with the TCGCSA and the Blue Pearl Tournament for the past three years. What they have accomplished, working with local schools and the Audubon School Program, is a wonderful model for all superintendent chapters across the country.

"Being involved in the Blue Pearl tournament is truly a rewarding experience," says Bill Lanthier, CGCS, Mariner Sands Country Club. "It is an opportunity to be active in your community and help children learn more about their environment."

Current TCGCSA President Dick Gray says, "Have you ever seen a picture of this planet taken from a satellite? It looks like a blue pearl floating in a sea of black. One of our chores is to polish the pearl. Clean it up, restore it. We are hosts; we are guests; we are company, and we need to behave accordingly."



(Back to front) GCSAA Director Ken Mangum, CGCS; Lee Mangum, Audubon International; and Rod McWhirter, Rain Bird, Inc. help a kindergarden class plant a butterfly garden during a tour of the Hobe Sound Elementary School. Photo by Shelly Foy.

The TCGCSA has published *The Blue Pearl Primer*, a three-page document describing the Blue Pearl Tournament and its philosophy. The members encourage every chapter to get involved with the

Audubon School Program and host a Blue Pearl of their own to raise money for local schools. For a copy of this document, call Bill Lanthier at 561-283-3644.



Rob Kloska, center, demonstrates his computere-controlled irrigation system to a group of fifth graders during a tour of the Jupiter Island Golf Club as part of the Blue Pearl weekend activities. Photo by Shelly Foy



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# Business and pleasure... and all that jazz

*1997 Poa Annua Classic combines business meeting with outstanding seminar, golf and entertainment*

The 1997 Poa Annua Classic weekend was a combination of business and pleasure for those who participated. The weekend began on Friday, May 16 with an 8 a.m. continental breakfast board meeting of the Florida Golf Course Superintendents Association to discuss association business and ongoing projects.

After committee chairman reports, FTGA President Roy Bates gave an update on the independent peer review of IFAS and the Turf Coordinator selection progress. Darren Davis previewed the almost finalized version of the new FGCSA video. The board devoted the rest of the morning to the budget worksheet for next year.

In the brief transition period between the morning board meeting and the afternoon education seminar, the first meeting of the FGCSA Past Presidents Advisory Council took place to organize and define its mission and purpose. The Council is being formed as a resource group primarily for incoming boards to help provide continuity and support when needed.

The members of the group will be available to assist on committees and answer any questions the current board may have. Since each past president has



*The FGCSA Board Meeting gets an early start Friday morning to address association business. Unfortunately, not all chapters were represented. Photo by Joel Jackson.*



*President Dale Kuehner, center, is flanked by past presidents, from left, Paul Crawford, Joel Jackson, Tom Burrows and Scott Bell. They met to discuss formation of the Past Presidents' Advisory Council.*

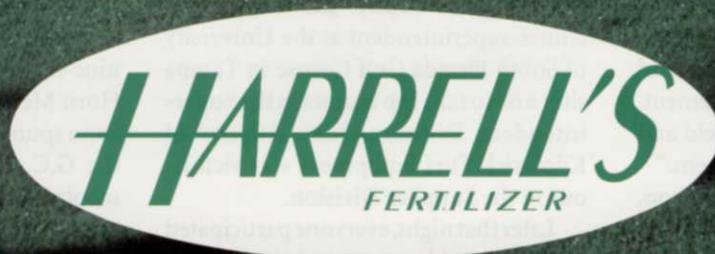


*Seminar speaker Dr. Tom Morgan told the crowd that news is big business and not always the search for truth. Photo by Joel Jackson.*

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Superintendents seeking CEUs and information learn how to deal with the media and prepare for interviews at this year's Poa Seminar. Photo by Joel Jackson.

served at least four years on the board and in many cases remains active in local chapters and on FTGA and GCSAA committees, the council is seeking to organize all that service and leadership experience to provide a ready resource to the officers and directors of the association.

The year's seminar, "Crisis Spokesperson Training," was presented by Dr. Tom Morgan, a former radio broadcaster and university professor of mass communications. Dr. Morgan presented a very illuminating yet somewhat dark picture of the news media in today's visually oriented society.

Statements like "News is what I say it is!" and "Don't let facts get in the way of a story!" and "Reality doesn't matter; it's what the Great Public thinks!" were sobering thoughts to digest.

Dr. Morgan cited examples from Hitler to Madison Avenue to prove his points. Since news has become big business, Dr. Morgan then gave numerous tips on how to get organized and handle yourself in an interview if you must be the spokesperson in a given situation.

The moral of the seminar was that turf and agribusiness interests need to have a definite plan and hopefully trained spokespersons who can deal with the media. Dr. Morgan said, "Issues management is cheaper, more effective and more rewarding than crisis management. Get ahead of the issues in your field and position them where you want them."

After a day of business and education, it was time for friendly competition on the links Saturday morning as individuals and chapter teams vied for victory.



Receiving the Poa Annu trophy for the Everglades Chapter were, from left, Wayne Kappauf; Terry Woods, EGCSA president; Dan Surman; and Nat Hubbard. Team members not pictured were Roy Bates and Scott Hamm. Photo by Joel Jackson.



Jim Torba, GCS of the Univrsity of South Florida course in Tampa shot a 69 to win the Superintendent Division. Photo by Joel Jackson.

The overcast skies threatened rain, but spared the field and the Poa Annu tournament was completed on schedule.

The host Everglades Chapter took the coveted team trophy. Jim Torba, golf course superintendent at the University of South Florida Golf Course in Tampa shot a 69 to take top honors in the Superintendent Division. John Swaner of Kilpatrick Turf Equipment was victorious in the Supplier Division.

Later that night, everyone participated in the annual banquet and awards ceremony. Entertainment for the evening

was the annual Naples Jazzfest held this year under the stars on the Naples Beach Club Hotel grounds.

On Sunday morning, the final event of the weekend was held as 50 two-man teams played a nine-hole scramble and a nine-hole alternate shot event in the G.C. Horn Memorial Tournament. Proceeds from sponsorships and entry fees go into the G.C. Horn Endowment Fund for scholarships and research funding in tribute to one of Florida's leading turf pioneers, Dr. Granville C. Horn.

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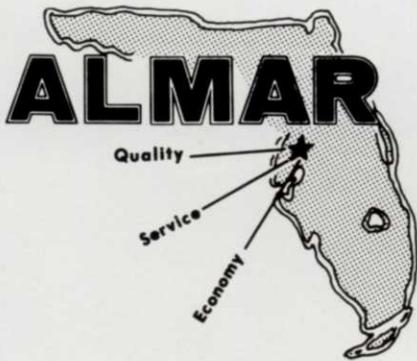


John Swaner took low gross honors in the Supplier Division. Photo by Joel Jackson.



Contestants warm up Sunday morning for the G. C. Horn Memorial Tournament which raises money for turf student scholarships. Photo by Joel Jackson.

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## Turf industry mourns passing of true legend

Thomas Mascaro of Pompano Beach died May 6 at the age of 81. He is survived by his wife Dorothy; sons John and Bobby; daughters Tammy Shackelford, Linda Owens and Stella Churchill; nine grandchildren; and five great-grandchildren.

Tom had been active in the golf course industry for the past 65 years. He also was an inventor with eight patents and over 70 turf-related products to his name. His greatest claims to fame are the 1946 development of the aerifier for cultivating turfgrass and the verticut mower in 1952 for removing thatch. These inventions revolutionized golf course management.

He also won the prestigious USGA Green Section award, the GCSAA Distinguished Service Award and hundreds of other turf-related awards. He even has a museum, named the Mascaro-Steiniger Turfgrass Museum, on the campus of Penn State University.

He was former president of West Point

Products in West Point, Pa., and also former president of Turf-Tec International in Oakland Park, which is now being run by his son, John.

A private service was held on May 17. In lieu of flowers the family requests donations be sent to the Golf Course Superintendents Association Foundation's Historical Preservation Fund, (913) 832-3607.

♦♦♦♦

*Every member of the turf industry has been affected by Tom Mascaro. Our very thinking of modern cultural practices originated from his vision and inventions. He was the truest of turf professionals in our time, and we will miss his envelope-pushing creativity.*



Tom Mascaro with UF pathologist Dr. Monica Elliott. Janlark photo.

*We could fill pages with anecdotes, stories and tributes from those who have known and worked with Tom over the years, but instead we offer a poem submitted by David Bailey that was written by Tom and was read at his funeral. It comes from the hand, the heart and soul of one of turf's greatest stewards.*

Joel D. Jackson, CGCS

## 26-year Disney vet Larry Kamphaus passes away

Larry Kamphaus, CGCS, of Disney's Magnolia G.C. in Orlando died Monday, June 9, 1997 at the age of 54.

Larry had been with the Walt Disney World company for 26 years.

He started with Disney by working in landscape helping to plant the now majestic oaks on Hotel Plaza Blvd when Disney World was just a one building Preview Center off Interstate 4.

He moved into golf course maintenance to grow in the Magnolia and Palm courses and had been involved in the development of all the remaining 99 holes



of golf at Disney World, including the Lake Buena Vista, Oak Trail, Eagle Pines and Osprey Ridge courses. He became a Certified Golf Course Superintendent in 1985.

From 1980 to 1996 he had served as the head superintendent of Disney's Golf

Course Maintenance, hosting two GCSAA Golf Championships and had been involved in all 26 of the Disney-Oldsmobile Golf Classic PGA Tour events and the three LPGA Healthsouth events.

Larry was a member of the GCSAA, FTGA and Florida GCSA. He served on GCSAA Conference and Show Committees; was a Director of the FTGA; and held all offices in the Central Florida Chapter.

He and his wife Vilma had co-chaired the Central Florida Crowfoot Open Committee for over a decade. He also served many years on the Turf Advisory Council for the Orange County Extension Service. In 1992 Larry was awarded the President's Award for Lifetime Service by the Florida Golf Course Superintendents Association.

He is survived by his wife Vilma; daughter Nicole; sons Larry, Jr. and Lance; and grandson Austin.



## Grass is indeed the benediction of Mankind

*Into Life we come, mysteriously arrived,  
Great are our wants, so little we know  
We see only mountains, the Sea and the  
sand.*

*But we take for granted the plants, that  
grow upon the land.*

*Nor do we see the blanket of Green that  
covers the earth.*

*Nor do we realize how much the blanket of  
Green is worth.*

*For the Family of Grass feeds and sustains  
our body and soul!*

*Bread from corn, and wheat, and rye, and  
oats are man's goal.*

*And Grass sustains creatures who change it  
into meat and eggs and milk*

*That Feed Our Body*

*We walk upon this green carpet of Grass.  
We play upon it while children run  
and roll.*

*It is our playground of recreation and sports  
and games that feed our minds and  
souls*

*And Grass prevents our land from washing  
into the Sea*

*And stops dust from blinding and choking  
us, and provides clean air for you and  
me.*

*But the needs of humanity would never  
have been,*

*Were it not for the Thinkers, the Dreamers  
and Scientists*

*Who created Machines and Tools and  
Methods to make it possible.*

*To feed the body and Soul of People of the  
World.*

*Finally, we bow down our heads to enter  
the Earth and we,*

*Have a blanket of green Grass to cover our  
body and Soul.*

*For our long sleep into Eternity*

— by Tom Mascaro

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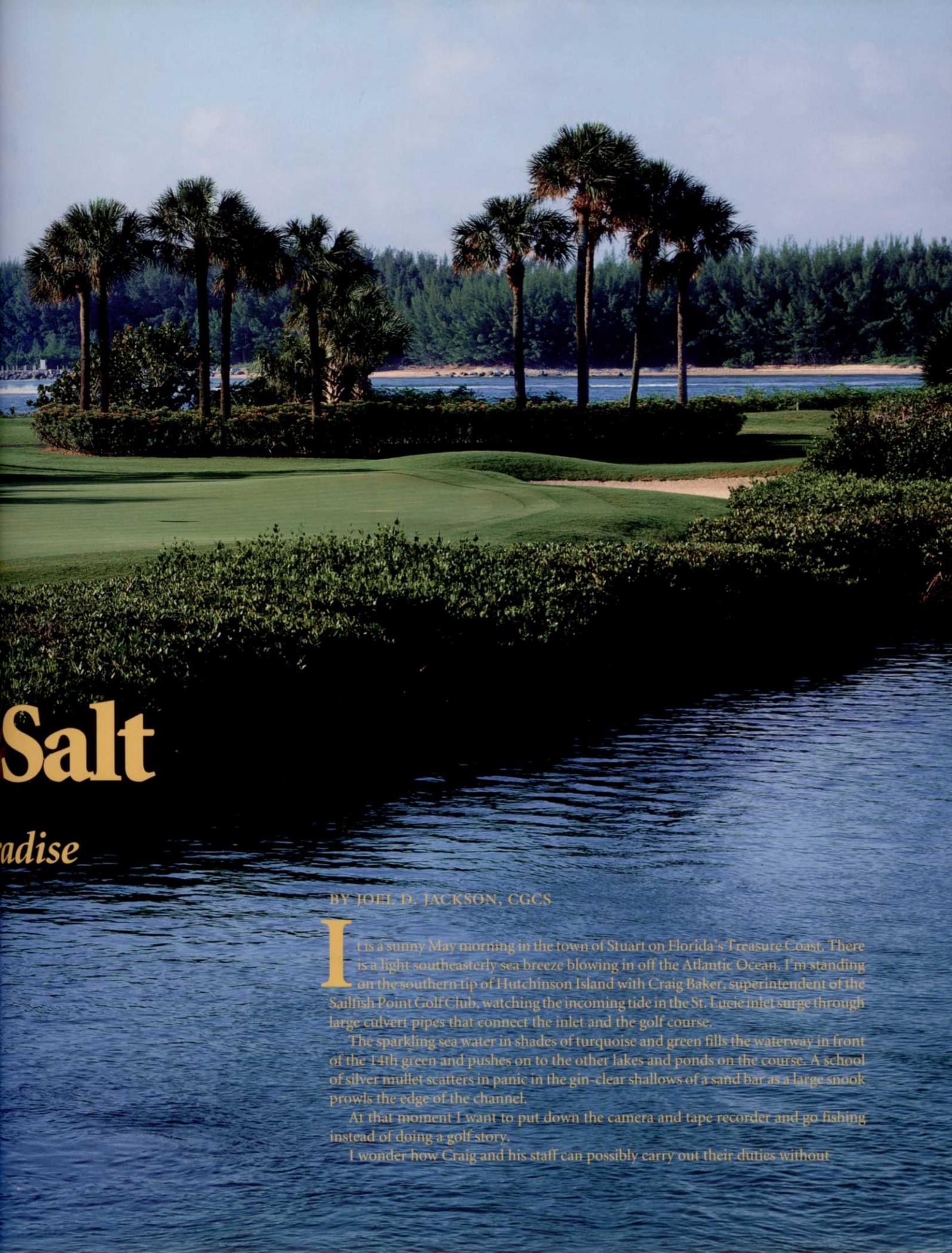
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# A Course Worth Its

*A day at Sailfish Point is just another day in paradise.*

*The 14th green and the St. Lucie Inlet.*



# Salt

Paradise

BY JOEL D. JACKSON, CGCS

**I**t is a sunny May morning in the town of Stuart on Florida's Treasure Coast. There is a light southeasterly sea breeze blowing in off the Atlantic Ocean. I'm standing on the southern tip of Hutchinson Island with Craig Baker, superintendent of the Sailfish Point Golf Club, watching the incoming tide in the St. Lucie inlet surge through large culvert pipes that connect the inlet and the golf course.

The sparkling sea water in shades of turquoise and green fills the waterway in front of the 14th green and pushes on to the other lakes and ponds on the course. A school of silver mullet scatters in panic in the gin-clear shallows of a sand bar as a large snook prowls the edge of the channel.

At that moment I want to put down the camera and tape recorder and go fishing instead of doing a golf story.

I wonder how Craig and his staff can possibly carry out their duties without



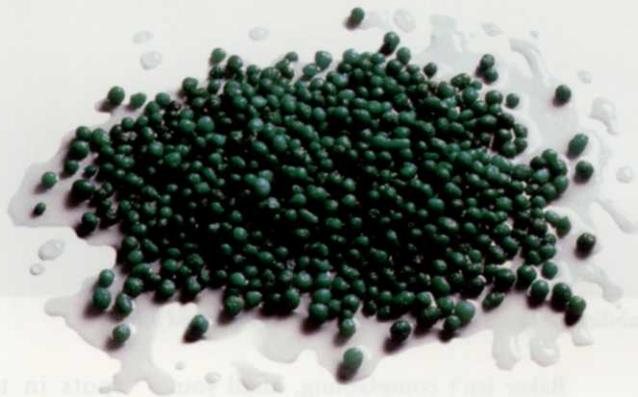
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*"No mow" zones like this one on hole #3 help stabilize the banks and provide habitat for birds and fish.*

daydreaming of wetting a line or getting distracted by striking fish and the constant stream of fishing boats and yachts slipping past the course leaving trails of white foam in the blue waters. It is truly a paradise setting. But paradise comes with a price, and I don't mean just land values.

Surrounded by salt water and under a constant breeze, Sailfish Point is a challenge to maintain to the high standards expected by both members and superintendent Craig Baker.

"The weather we experience here has had the most influence on my maintenance programs than at any other course I have managed," said Baker. "I have seen salt crystals as thick as frost on the course when the winds are really blowing. I have even had salt burn on the riverside part of the course once from a northerly wind during a severe cold front.

"Sometimes the wind can blow for a month at a time when a high pressure area settles in. That makes it impossible to spray for weeds and pests and it also affects the irrigation coverage."

Baker isn't complaining, mind you. He has had to adjust his turf management practices to work with what Mother Nature gives him.

"Our irrigation water tends to have a high salt index as you might expect since we're on a coastal barrier island. During the winter when more people are here, we can dilute our irrigation water with effluent, but in the summer we have to rely solely on the deep well."

Salinity of the soils is also a challenge for Baker.

"A lot of the soil here is dredged up river bottom and it has a very fine texture so not much leaches through, including the brackish irrigation water. So from time to time we apply gypsum, but I haven't seen much response. We do use it annually on the greens because they have a sandier profile. We also use an acid injection system called Phairway to help balance the pH of the soil."

Because several of the fairways had high saline and sodic areas, Baker brought in a few pieces of Adelaide paspalum grass and started plugging it in to the bare

spots in the fairways and roughs. Paspalum is a fine-textured grass with the ability to thrive in poor soils. It can be very aggressive and get thatchy, but it can be managed and provide a turf that can live in areas where bermudagrass doesn't do well.

Baker says there is no real competition between the grasses.

"The Adelaide does well where the 419 can't and vice versa. The paspalum will go off color during intense drought conditions, but at least I've got something I can grow in the salty areas. We just keep adding plugs to thin spots. One fairway was over one-third bare when I first came here now we only have a few difficult spots left to contend with."

Baker and his staff do get to do "normal" turf maintenance besides dealing with salty air, water and land. The condition of the gently rolling Nicklaus-designed course reflects the dedication and teamwork of the maintenance department.

There have been modifications to the course since it opened in 1981, and Baker



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Early morning view from behind #4 green. The #3 green and the Indian River are in the background. Photo by Daniel Zelazek.

has been there from the rebuilding of the greens in 1988 to the ongoing drainage work in some of the fairways and bunkers.

Baker said, "Last month we had a week of rain totaling 14.65 inches with the last 7.25 inches all falling on a Wednesday. We were open by Friday. We can take spring and summer rains, but when we have the fall flood tides and a wet cold front we stay wetter. There have been sometime periods in the fall when I won't water fairways for 30 to 40 days."

Another modification Baker introduced was the taller cut along the banks of the water hazards.

"The banks used to be kept mowed down to the shortest possible Flymow height. We started having erosion problems from heavy rains and the rising and falling tides. We even had to install some bulkheads to keep from losing a green.

"We raised the height of cut and just go in and trim it when needed. A side benefit is that we now basically have a (no

mow) zone along our waterways that helps to capture and filter any possible runoff."

Baker and his staff are charged with keeping the Tifdwarf greens medium fast to fast all year long so the greens are kept rolling from 8.5 to 10.5 on the Stimpmeter. Baker "interseeds" with light rates of *Poa trivialis* in the fall. This year he put out only 5 to 6 pounds per thousand square feet and he rarely exceeds 8 pounds in a typical year.

One of the benefits of the oceanfront location is that the temperatures do stay quite a bit warmer than the inland courses. It takes a really hard freeze to affect the turf here.

Baker also rolls his greens on Mens Day and Ladies Day, sometimes expanding that to three to four rollings per week. The height of cut in season is at 1/8th of an inch.

Since play is seasonal at Sailfish Point, Baker and his staff carry out most of the project work from May to October while

still preparing the course for the 20 to 30 players that might tee it up during the summer months.

In the fall and winter, play can average anywhere from 175 to 240 players a day giving little time except for course grooming. This summer work is under way preparing a short-game practice area near the clubhouse just left of the eighteenth fairway.

Later the bridges on holes #2 and #7 will be reworked to replace the planking and cross beams. Then there are over 200 landscape beds to be reshaped and refurbished. Without a dedicated landscape crew, this work falls to the golf maintenance staff to take care of as part of their routine.

Baker recalled one of the more difficult landscape jobs they had to perform.

"We lost a huge sea grape in the cart path turnaround on the Number 2 and 7 double tee island during the 1989 freeze. We wanted a specimen plant to replace it so we bought a large phoenix *robellini*

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Craig Baker, GCS.  
Photo by Joel Jackson.

## Craig Baker

**Originally from:** North Webster, Indiana.

**Family:** wife - Connie; son - Tony, assistant superintendent, Loblolly Pines G.C., Hobe Sound.

**Education:** A. S. Golf Course Operations - Lake City Community College, class of 1974.

**Employment History:** 1988 to Present, Sailfish Point Golf Club, Inc., Superintendent. 1977-88 Indian River Plantation Resort, Superintendent. 1974-77 Lone Palm Golf Course, Asst. Superintendent. 1973 OJT at Harbor Town Golf Links, Hilton Head, SC. 1972 OJT at Gainesville Golf & Country Club, Gainesville, FL.

**Professional affiliations/Offices held/Honors/Awards:** Member of: GCSAA, FTGA, FGCSA. Founding member of the Treasure Coast Chapter of the FGCSA — Served as president, vice-president and treasurer. Received an FTGA scholarship to Lake City Community College Golf Operations program. Honors — Sailfish Point being picked by peers to represent the Treasure Coast as the Florida Green Summer '97 cover story.

**People in or out of the industry who have influenced your life and career:** My mother and father for giving me a strong work ethic and supporting me through college; Mr. Jerry Cheesman, LCCC instructor & former superintendent, for giving me the whole picture of the dedication it takes to be a superintendent; my wife for tolerating many early departures and late returns.

**How did you get into the business?** Worked on a golf maintenance crew in Indiana in summer of 1965 before attending college. My cousin, Rick Baker, attended LCCC, class of 1972 while I was in the Navy. I then attended LCCC after my Naval service.

**Goals/accomplishments/personal philosophy:** To be the best superintendent I can be. To continue to learn daily. To accomplish your goals, you must surround yourself with a strong support staff.

**Advice to prospective superintendents:** When you think you know most everything, you will be humbled by Mother Nature!

**Personal memorable moments good, bad or humorous:** (1) When Roger Welker (now with U.H.S.) worked for me at Indian River Plantation and was bitten by a rat snake. However, I told him it was a copperhead — all color immediately drained from his face! (2) When Dick Gray (Loblolly Pines - Florida Club) worked for O. M. Scott's and came in to my office, complaining of a sore back, and lay prone on my office floor moaning! (3) One day I sent an employee to trim mangroves. As I was checking a nearby green, I noticed he hadn't moved for approximately 10 minutes. When I went angrily to confront him, I found him working diligently. He had laid his hat on top of the mangroves. You had to see it to appreciate it!

**Hobbies and interests:** Golf, fishing, all sports.

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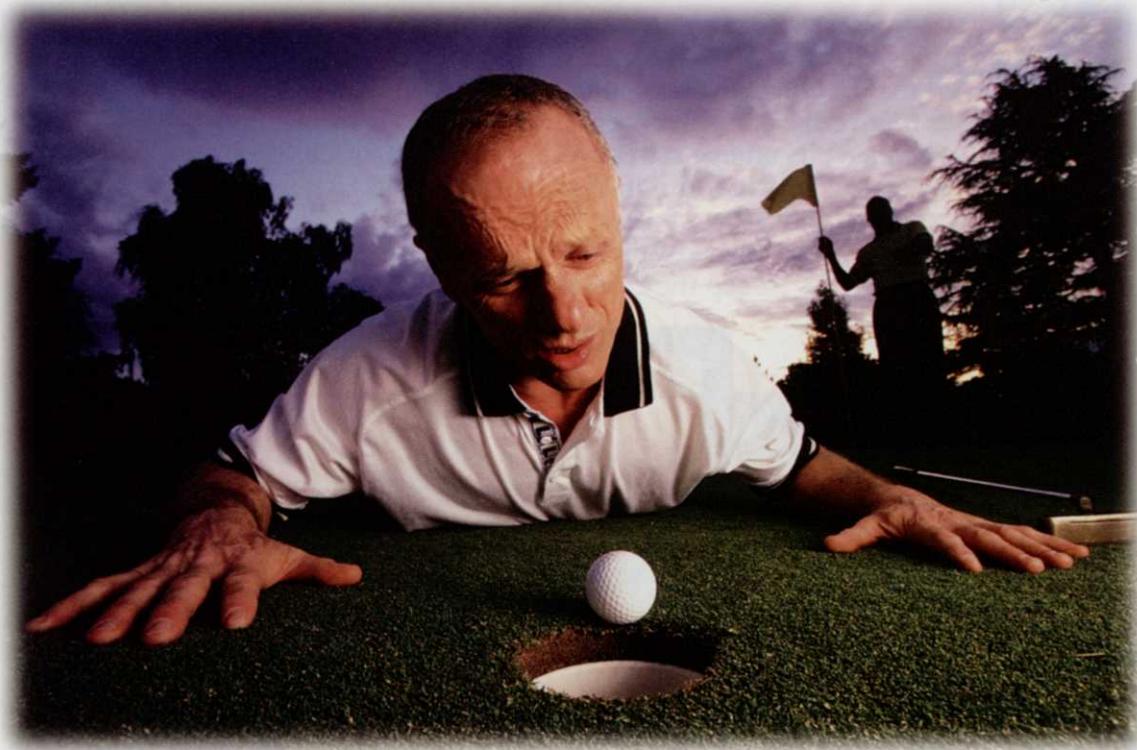
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## Sailfish Point GC

**Location:** Hutchinson Island, Stuart, Florida.

**Ownership:** Member owned.

**Playing Policy:** Private and guests of members.

**Management Team:** Club President - Samuel Zemsky; Head Golf Professional - Victor Tortorici; Green Committee Chairman - Robert Greaves; Asst. Chairman - Hugh Beath; Club Vice President - John Lindsay; Treasurer - David Armstrong; Secretary - Naomi Tolley. Golf Course Superintendent - Craig Baker; Assistant Golf Course Superintendent - Steve White.

**Designed by:** Jack Nicklaus. Constructed by: Dickerson Construction, Inc.

**18 holes:** Par 72 at 6,832 yards. Opened 1981.

**Course Slope/Rating:** Gold = 74/137; Blue = 71.8/132; Green = 69.6/127; Red = 71.8/127.

**Major renovations/projects:** Rebuilt greens in 1988; reconstructed & drained bunkers in 1989; complete re-landscaping of course after 1989 freeze; ongoing drainage in many fairways; rebuilding of several tees; rebuilding two bridges in 1997.

**Acreage under maintenance:** 116 acres.

**Waterways:** 28 acres of salt water tidal lakes, canals and ponds.

**Greens:** 4 acres. Average size = 8000 sq.ft. Turf type = Tifdwarf. HOC: .105" - .140" including seasonal changes. Overseeding - Type and rate: Interseeding w/Poa Trivialis @ 6-8 lbs/m. Green speed goals: 8.5' - 10.5'

**Tees:** 5 acres Turf type = Tifway. HOC: .375" - .450" including seasonal changes. Overseeding = Perennial Ryegrass @ 14-20 lbs/m.

**Fairways:** 36 acres. Tifway 419, Adelaide Paspalum and Common Bermuda. HOC including seasonal changes = .500" - .625." No overseeding.

**Roughs:** 71 acres. Turf type = Tifway 419, Adelaide Paspalum and Common Bermuda. HOC including seasonal changes) = 1.25" - 1.50." No overseeding.

**Irrigation:** Source = 1100' deep Artesian well. Salt concentrations have reached as high as 2300-2400 PPM. Can supplement with effluent water during peak winter season. Equipment: PSI pumping station. Heads - Toro, 694's, 692's and 670's. Controllers - Toro Varitime II.

**Staff:** Total of 18 - 22 including head superintendent.; assistant superintendent, Steve White; Ren Deagle, head mechanic; Scott Perry, asst. mechanic; Domenic Fazio, irrigation technician; Bernadette Pratt, administrative/human resources; William Greaves, crew leader. 3 Licensed Pest Control applicators.

**Management challenges:** Water quality - sodium ppm 650-750; chloride ppm 1600. Salt concentration (TDS) has been as high 2300 ppm. Water pH - 7.5-9.5 (use Phairway Acid Injection). Barrier Island, can be very windy; lots of salt spray, and at times, salt water intrusion. Many fairways built from dredged material from Indian River. Maintenance of over 200 ornamental beds.

**Equipment:** Greens: John Deere walk mowers, Oct-May; Jacobsen Triplexes, June-September. Tees: Jacobsen Triplexes. Fairways: John Deere 3235A, summer & winter; Toro 5100, winter. Roughs: Jacobsen Blitzter; Ransome Rotary mower. Green and Tee Slopes: John Deere 2653 & Nationals. Club Car Utility vehicles. Cushman sprayer.

**Cultural/pest control/fertility programs:** Aerify Greens: 3 times with Toro Hydroject (Jan/Feb/March); 1 Deep Drill (May), 2 Coremaster (June or July & Sept.). Tees - 2 to 3 times with Coremaster. Fairways - 2 Aerway, 1 Jacobsen 590. Verticut greens, tees as needed. Topdress greens 15 times/yr. Fertilization: Greens: 18#N and 24# K per year. Tees = 12#N and 18#K per year. Fairways = 6-8#N and 8-10#K per year. Roughs = 4-6#N and 6-8#K per year. Above areas are supplemented with fertigation in winter.

**Wildlife:** Throughout the course of the year, there are approximately 80 different species of birds that have been noted at Sailfish Point. The Audubon Society does an annual Christmas bird census and always finds at least 50 different species; some of the more unusual are: Roseate spoonbills, pelicans, sandpipers, terns, gulls, herons, plovers warblers, black skimmers, ospreys and a variety of ducks. Bobcats and otters have also been observed.

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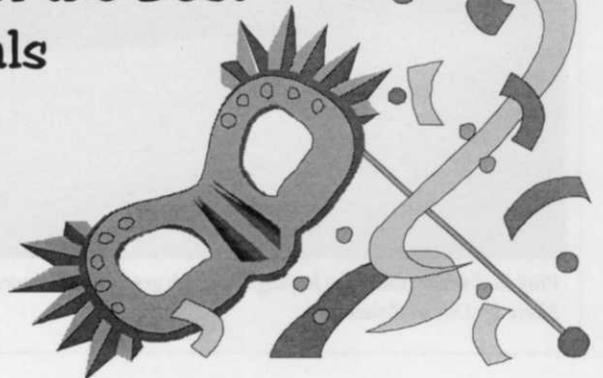
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palm. We trucked it in as close as we could and then we were going to use a combination of a crane and a loader to lift and shuttle the palm into place.

"The darn thing was so heavy the crane couldn't hold it when it slid off the truck. We had to cut the root ball into three pieces and then reassemble it in the hole. I dumped in 20 bags of Milorganite and kept a water hose trickling on it for a month. It never had a problem since."

The course abounds with sea grape and Australian pine, Norfolk Island pine, palms of several varieties, green buttonwoods, oleander, hibiscus and mangrove. While shade from the trees does not cause a turf thinning problem, it has had Baker wondering about influencing grain on some of the greens.

"You can see a perfect outline of the tree tops along the edge of the grain patch on No. 13 green. It appears as if the turf is

growing east-southeast because it can't follow the setting sun since the trees are blocking the light. It's the darndest thing I've ever seen!"

The nine-year-old greens were showing a few of the "mutation/contamination" spots that are common to courses all over Florida. While the jury is still out on exactly what we are seeing — mutation or contamination — Baker has made an interesting observation that points more toward the mutation theory.

Baker says, "I have these spots on most of the greens. The worst green is the 18th. It sits right on the beach dune. It gets the most salt spray and the most desiccating winds. It isn't much of a stretch to imagine that if living things evolve or mutate in response to environmental pressures, then these grasses we are dealing with might just doing that very thing."

Baker is a veteran "coastal superinten-

dent," working his way south from the Spessard Holland course in Melbourne to the Indian River Colony Club where he spent eleven years before moving down the street to Sailfish Point in 1988.

Baker is also a founding member of the Treasure Coast Chapter of the Florida Golf Course Superintendents Association and has held all the offices on the board

"In the beginning when we had about 27 to 28 courses in the area, we had almost 100 percent superintendent participation at our meetings. Lately, I have seen that participation fall off.

"I think the demands placed on most superintendents today has them staying home more and more. That's a shame because those meetings are a great source of problem solving information from your peers."

Baker is very proud of his staff, and he



*Pink and white oleanders highlight the 7th green on the course's shortest par 4 hole. The par 3 8th hole is in the background.*  
Photo by Daniel Zelazek.



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*Water guards the green and runs along the entire left side of the 515 yard par 5 10th hole. Photo by Daniel Zelazek.*

***I'm very glad the club lets the employees have access to the course. It gives them a much different perspective of the course... They get the complete picture. It is a great pride and morale builder.***

appreciates the benefits the club provides for his crew, from the afternoon golf and fishing privileges during closed days and off-season times to the health insurance, uniforms, lunches, paid vacation and sick days.

Baker also budgets money for education and training for interested crew members.

"I'm very glad the club lets the employees have access to the course. It gives them a much different perspective of the course and the conditions than from just seeing it from the seat of a mower. They get the complete picture. It is a great pride and morale builder."

With those comments Craig and I finished the ride of the course and the

interview. He took me on a tour of the marina located just behind his maintenance building, and he talked about the snook, redfish and trout he has seen in the waterways on the course and in the river behind his shop.

Once again I wished I had a fishing rod in the trunk of my car. As for Craig, it is almost noon on Friday and the crew will be leaving soon.

He will be going back out on the course to check today's work, make notes for tomorrow's schedule and set up the irrigation.

*Just another day in paradise.*



*This daunting shot faces players teeing off from the blue tees on #12. A special permit is required to keep the mangroves trimmed in front of the tee. Photo by Daniel Zelazek.*

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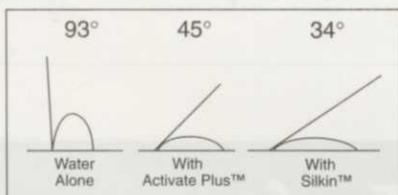
## Using Adjuvants In Your Plant Protection Program

**Here's how adjuvants can improve the performance and coverage of your plant protection product applications.**

Using adjuvants in your turf management program can help you improve plant protection product performance. They can even make the difference between peak and poor performance. The starting point is to find the right adjuvant for the job. The most commonly used adjuvants for turf are: wetting agents; spreader/stickers; spreader/activators; sticking agents, and buffering and compatibility agents.

### Wetting Agents

If you've been making thorough herbicide, fungicide and insecticide applications but still aren't getting the control you expect, your plant protection product may not be penetrating plant tissue surfaces. This reduces control and leaves spray residue susceptible to wash-off. The wetting agent Riverside® Silkin™ helps sprays penetrate plant tissue quicker for improved overall performance.



The wetting agent Riverside Silkin and spreader/activator Riverside Activate Plus™ reduce surface tension of spray so that it forms "flatter" droplets, improving coverage and absorption.

do. They deliver more uniform droplet distribution, quicker wetting and increased spray retention on leaf and stem surfaces when used with herbicides, fungicides and insecticides.

The spreader/activator Riverside Activate Plus improves performance and efficiency by moving the spray into plant tissue more quickly. By speeding up penetration, you get increased pest control.

### Sticking Agents

Contact herbicides, and non-systemic fungicides and insecticides can sometimes be washed away by rain, irrigation or even dew. Plant protection product sprays are also affected by drift. The sticking agent Riverside Plex® helps plant protection products penetrate the vegetation canopy and stick to plant tissue. That also helps control drift. Using



### Spreader/Stickers

Good control in some areas and poor control in others could mean drift and wash-off are taking their toll on spray performance. During application, spray droplet size varies, reducing adhesion and causing spray to miss the target. To improve coverage and adhesion, use the spreader/sticker Riverside Complex™. It adjusts droplet size for better performance, even under adverse conditions. By reducing surface tension in the spray droplet and keeping the spray mixture suspended, Complex can dramatically improve the efficiency of herbicides, fungicides and insecticides.

### Spreader/Activators

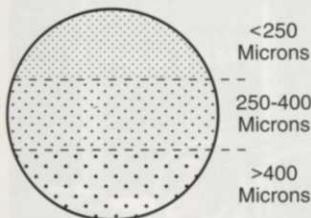
Droplet size varies during applications, making retention and distribution more difficult. Spreader/activators work in much the same way wetting agents



**Riverside®  
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Plex will help you make applications that will last longer, even in wet conditions.

### Approximate Actual Size



Spray droplets under 250 microns are susceptible to drift and poor coverage. Using Riverside Plex or the spreader/sticker Riverside Complex to control droplet size effectively controls drift and

improves coverage. Both maintain droplet size near 400 microns, ideal for the best application.

### Buffering and Compatibility Agents

If you're not getting the control you want but have followed label directions to the letter, it could be a pH problem in your tank mix. The buffering agent Riverside Combine® will help you correct the pH level for maximum performance from your spray mixture. If you're unsure of your pH level, use a pH test kit or, if you don't have one, contact your Terra representative.

### Combine® pH use chart.

		Starting pH			
		9	8	7	6
Desired pH	8	2	0	0	0
	7	4	2	0	0
	6	16	12	8	0
	5	20	16	12	8
		Oz/100 gal. water			

A chart like this one makes it easy to adjust pH level for optimum results. For example, if your desired pH is 7 and your starting pH is 9, you would need to mix 4 ounces of Combine per 100 gallons of water to get the proper pH.

In addition to buffering, Combine also works as a compatibility agent. The compatibility agent Combine should be used when: more than one plant protection product is included in a tank mix; when tank mixing different formulations like wettable powders and liquids; or when applying micronutrients or plant protection products with fertilizer. Also, Combine improves spray mix stability and dispersion.

To see if a compatibility agent will help your tank mix, try the jar test. Fill two quart jars each with a pint of water or carrier. Use the same source and temperature as you would in your actual tank mix. Mark one jar "with" and one "without." Add 1/4 teaspoon of Riverside Combine to the jar marked "with" and shake it gently for 5-10 seconds. Add the plant protection product(s) to both jars in the proper volume and sequence according to the label directions. Shake gently before adding each new product. Wait 5-10 minutes. Check both jars. If no gels, sludge, flakes or other irregularities are present, the mix is compatible.

If the jar marked "with" is compatible and the jar marked "without" isn't, a compatibility agent should be added to your tank mix. If the jar marked "with" isn't compatible, the tank mix shouldn't be used.

Wait 30 minutes. If the mixture separates but readily mixes again, the tank mix can be used with proper agitation.

### Adjuvants Pay Off

Overall, adjuvants can help you protect the investment you make in plant protection products by making them more effective. Whether you're using wetting agents, spreader/stickers, spreader/activators, sticking agents, buffering and compatibility agents or all five, they can help you overcome some of the common problems faced by turf professionals.

For more technical information on adjuvants, contact your nearest Terra Professional Products representative.



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# Sailfish Pointers Photo Page

Photos by Joel Jackson



This LANDA self-contained washdown and recovery system collects and separates clippings and rinsate from golf course equipment. It also serves as a mix and load site.



Remote divot sand fill stations on the front and back nines allow members to refill sand buckets on their golf carts during the round.



One of several turtle crawl boards provided on a water hazard that is surrounded by a sea wall. The cattail planting signals "water hazard" to unwary golfers down the fairway.



Communicating daily pin locations is done with permanently mounted greens diagram on the cart steering wheels. Each green is divided into 5 zones. The zone in use is posted daily on the first tee with a removable numbered tag.



Practical Alternative - This area was once a crushed shell waste area. Constant tidal flooding and shell pieces scattered into the turf was solved by adding fill dirt and sodding to make a grassy bunker.

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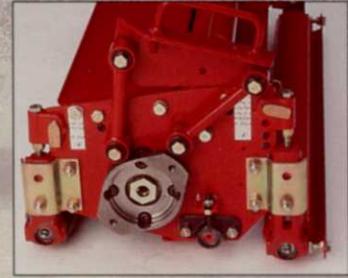
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# Irrigation: It's a matter of control

*Irrigation practices are controlled by permits, restrictions, water quality, soil conditions, course design and much more.*

BY JOEL D. JACKSON, CGCS

**F**rom the cover story on Sailfish Point to the Legislative Updates in the "Official Business" section (see page 90), it is plain to see how important water is to our business. Water issues can be anything from a political time bomb to just a simple question of, "How much irrigation should I run tonight?"

Our ability to irrigate our golf courses is controlled by permits, water management district restrictions, water quality, soil conditions, course design and construction, pumping system capacities, controller capabilities, computer-controlled weather stations, system designs, wind and golfer expectations. Have I left anything out?

Turf research and consumptive use permits have taught us that we should and must learn to live with less water.

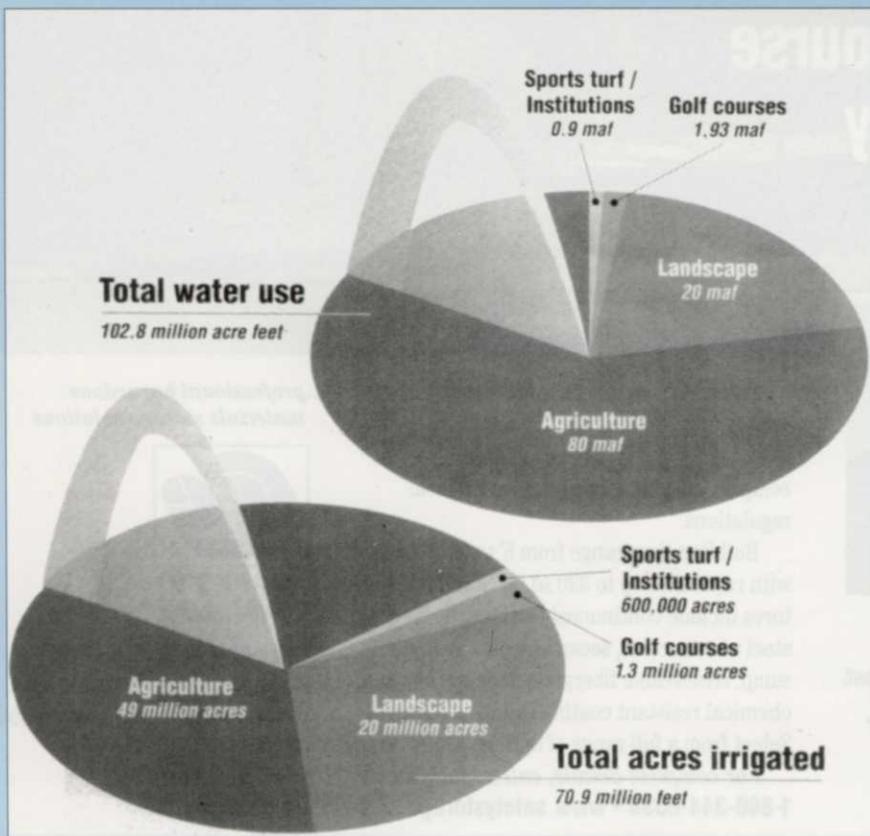
Users of higher saline water have begun to use more salt-tolerant grasses or inject diluted acid into their supply lines to modify the pH level of the water. Some courses along the coast are

*Continued on page 58*



**Hot spots by design?**

*Poor water distribution. Is it lack of head to head coverage or ineffective intermediate nozzle patterns creating the parched donut around the head? Or is it some other factor? There were about a dozen of these "donuts" scattered around the course in the early spring. After renovation and increased rainfall they have disappeared. Photos by Joel Jackson.*



## Who's actually using all of our water?

"Why do golf courses get to 'waste' so much water?"

That's what some casual observers are wondering out loud when they see an irrigation system at work on fairways, tees or greens. As with many things having to do with managing often scarce resources, people just driving by a golf course have a tendency to jump to conclusions — very often, the wrong ones.

These often well-meaning, but misinformed, citizens could do well to look at their own backyards, and those of their neighbors, before pointing an accusing finger. Residential and commercial (business places, industrial parks and corporate offices) irrigation has expanded more than 30 percent in the last 15 years and, according to the Irrigation Association of America, more than 20 million acres of residential and com

*Continued on page 58*

*Continued from page 57*

mercial landscape are irrigated today. Golf courses account for only 1.3 million acres.

And these figures consider just the fairly sophisticated irrigation installations found in residential areas (albeit they may be do-it-yourself systems) and not the friendly neighbor with his lawn sprinkler and garden hose who puts as much water on driveway and sidewalk as he does the lawn.

Since 85 percent of this residential market gets its water from public or private water agencies, the cost of putting water on this property is substantial.

The association estimates that residential and commercial installations about 20 million acre feet of water each year. If an acre foot (325,000 gallons of water) costs \$400, the value of the water applied by these systems would be in the neighborhood of \$7 billion.

(According to the American Water Works Association, the average cost of

public water to residential users is \$572 per acre foot.)

By contrast, the golf course industry uses fewer than 2 million acre feet of water each year—less than 10 percent of what's used by homeowners.

And many golf courses draw irrigation water from wells on the property, or ponds and impoundments built just for that purpose. They don't rely on public water sources for irrigation.

Since the first automatic landscape irrigation systems were invented nearly a century ago, residential irrigation has often been considered a luxury rather than a necessity, but that's no longer the case for many people.

Next time a well-intended but short-sighted neighbor questions your "wasting" water, share some of these figures. Billions of dollars can be saved by homeowners and business owners making better use of irrigation technology—the kind of technology golf course superintendents use every day!

*Credit: Minnesota Hole Notes.*

## Matter of control

*Continued from page 57*

already turning to desalination equipment to manufacture their own fresh water.

Irrigation delivery systems around the state range from a night water man using manual snap valves to radio-controlled, computer-managed systems with automatic remote weather station adjustments. No matter how primitive or sophisticated a system is, it still takes a human to evaluate conditions. A weather station doesn't know you applied a pesticide or a fertilizer that needs additional watering. Only humans know that the back left of No. 14 green will start drying out before anything else 24 hours after that half-inch rain yesterday.

The use of surfactants (wetting agents) to condition the soil is becoming more common. Dedicating more manpower and labor hours to spot-watering localized dry spots is a necessity for the conservation of water resources and the sound management of the surrounding turf. Putting good quality water where

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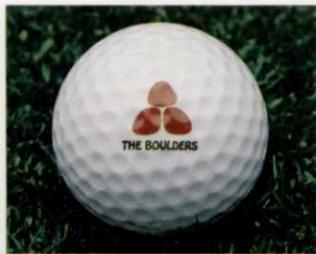
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and when it's needed is the key and it's not always an easy thing to do. Some of your fellow superintendents share their irrigation stories on the following pages.

### Water Water Everywhere

You can drive by the Grand Cypress golf course during a rain and see sprinklers running. The first reaction of most people would be to think the superintendent wasn't doing a very good job of monitoring his irrigation. They would be wrong.

Tom Alex gets 450,000 gallons of effluent from the Hyatt Regency hotel daily and must dispose of it. He has a system of perimeter heads that he must run daily to dispose of that gray water.

"We had a Varitime II control system originally, but we are upgrading to the latest Rain Bird computerized system and that has allowed us to disperse the water even better than before," Tom said. "The Grand Cypress site was once an orange

grove so we are fortunate to have good percolation and drainage since we are required to put out the water regardless of rainfall."

The newest of Orange County's golf courses, Orange County National, is being built on land in the western part of the county once used as an effluent spray field. The design calls for large ungrassed waste areas as percolation basins for the necessary disposal of effluent water. The addition of the golf course is a way to make the land double its value to the community by also providing a recreational facility.

All of the Disney golf courses are now on Reedy Creek Improvement District's effluent system. The Palm, Magnolia, Lake Buena Vista and Oak Trail courses have the pipeline tied directly into the irrigation system and boost the pressure with pump stations.

At Bonnet Creek, the Osprey Ridge and Eagle Pines courses store the effluent

in irrigation storage lakes and pump from them.

The Palm, Magnolia and Oak Trail courses currently have Buckner Legacy controllers and the Osprey, Eagle and LBV courses have Rain Bird Maxi V control systems with the LBV course undergoing an irrigation rehab recently. The 25-year-old block systems at the Palm and Magnolia are scheduled for redesign over the next two years.

While the above-mentioned courses are blessed with unlimited water resources for the immediate future, they are more the exception than the rule. Most golf courses have to ration their ground or surface water based on consumptive use permit limits.

Water resources continue to be a major concern in the legislature as our state continues to grow in population. Be sure and read the Legislative Update section elsewhere in this issue where Mike Goldie and Tom Benefield report on this year's water bills.

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## Managing My Irrigation, Changing My Water Source

BY SCOTT BELL, GCS  
Bent Pine G.C.

Since 1977 Bent Pine Golf Club has irrigated with artesian ground water from the Floridan Aquifer. The water is piped directly from the well into the pump station where the pumps pick up the water and send it out through the system.

I have been irrigating over 120 acres with two 50-horsepower motors on vertical turbine pumps. This system has been very energy-efficient — my electric bills rarely rise over \$1,200 per month. Since 1994, the St. Johns River Water Management District has been working with us to change our water source to storm water or effluent.

The club has a close proximity to the North Relief Canal. Years ago we were allowed to divert water that would otherwise go out to the saltwater Indian River to our lake system. This has helped us manage and stabilize our lakes and also be environmentally friendly by keeping extra freshwater out of the Indian River.

This water will soon become our irrigation water. Two years ago we began to plan a new lake to supply and hold irrigation water. This fall we got approval to construct the lake.

St. Johns WMD is trying to get all groundwater users to convert to storm water or effluent. The idea is to save the groundwater for potable uses. The construction of the lake will give Bent Pine Golf Club a large water source for the future.

We teamed up with a local fill contractor to handle the digging and sale of the soil. The lake will be dug by a trackhoe and a dragline to a depth of 12 feet below the groundwater level. The fill is being used around town for general purposes.

When the lake is complete, we'll have a new water source and a new VFD pump station. We are hoping that this will not change our watering practices.

The artesian water was slightly on the salty side but I feel that it was beneficial to the turf. We have 12 bentgrass greens that

last throughout the summer. I hope that the change in water will not affect the bentgrass.

We irrigate with a Toro Osmac system that has performed very well for the past seven years.

We recently replaced all of the hydraulic tubing, electric wire and hydraulic supply line. The new pump station will be the final stage in the upgrading of our system.

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## Winter Pines Irrigation

BY JOE ONDO, CGCS

*Winter Pines G. C.*

Our irrigation system at Winter Pines has gotten progressively better over the years. We started in 1979 with eight holes automatic electric double-row system, and 10 were hydraulic on greens and tees and quick couplers in the fairways. Starting in 1981, we added automatic irrigation one or two holes at a time. We have Griswold controllers and valves, so we continued with those. We used RainBird 51's and 81's on greens and tees and Thompsons on the fairways.

We did this until the City of Winter Park Treatment Plant expanded and brought effluent water to the middle of our golf course. The city helped pay and install the rest to finish our course.

We usually run one or two heads off one valve. We have added part circle

sprinklers over the years along the property line and along our lakes.

We had nowhere to install a holding pond, so our pump station was taken out and capped. The city has supplied us with all the pressure and water we need from about two miles away. We average and pay pumping costs for 150,000 gallons a day, and we don't have to use it when it rains a lot.

The city also has alternate sites to pump to, like cemeteries and baseball, football and soccer fields. We work closely with them and have not been down more than 24 hours since 1985.

We also have four monitoring wells that are checked periodically by the city. Water tests are also done by us once or twice a year. Maintenance of our system is an ongoing process that is done by my irrigation technician and myself.

Syringing cycles are run daily in dry conditions to check rotation and water hot spots.

The RainBird 51 and 81 heads work

best for us on greens and tees. We can avoid dragging a hose out to water a localized dry spot by stopping the impact sprinkler where we want.

Having an electric system has been good for us because if a solenoid has a short or gets hit by lightning, the breaker will blow on that station to tell you which one it is.

The Griswold valves are self-cleaning and are fairly easy to rebuild. Sometimes a diaphragm will tear or a piece of debris in the valve will cause the sprinkler to run all night, but thankfully those happenings are few and far between. Each station has its own lightning protection so if there is a power surge, the control panel is kept separate and is less likely to receive any damage.

We continue to add irrigation to dry areas as time permits and monitor our coverage as the need arises to change an area. As a whole we have a good system for our course and a good supply of water for the future.

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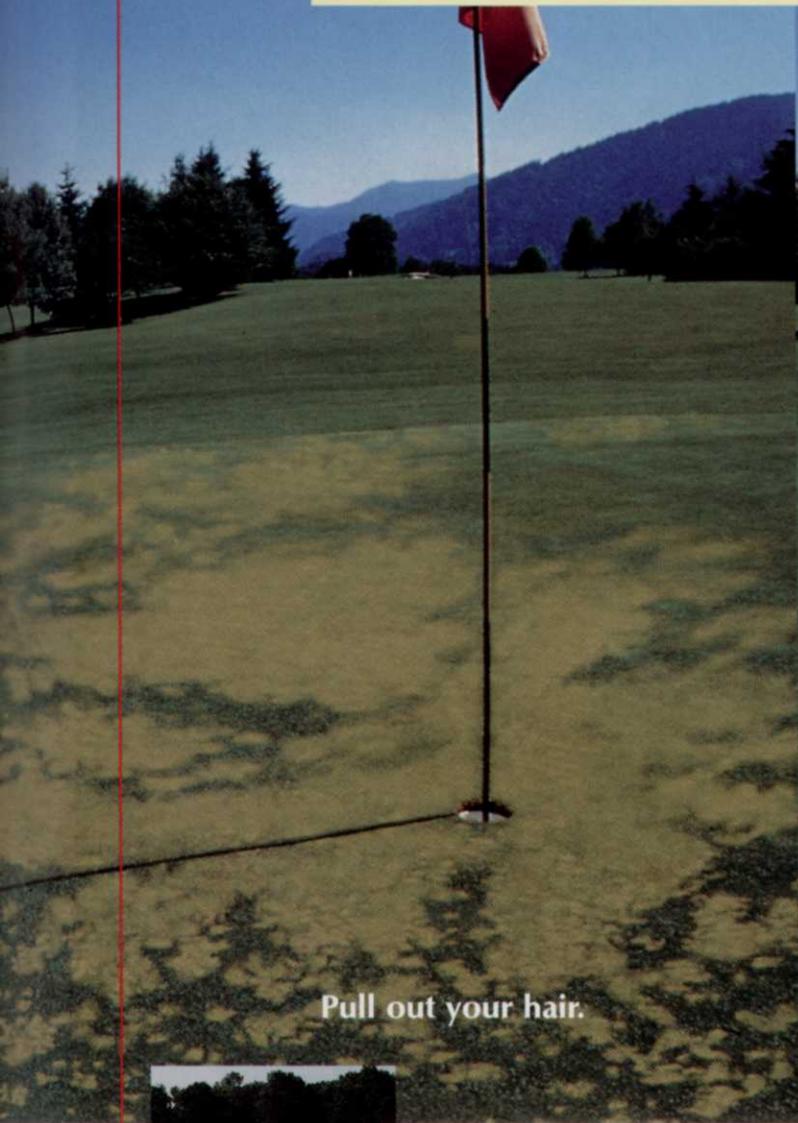
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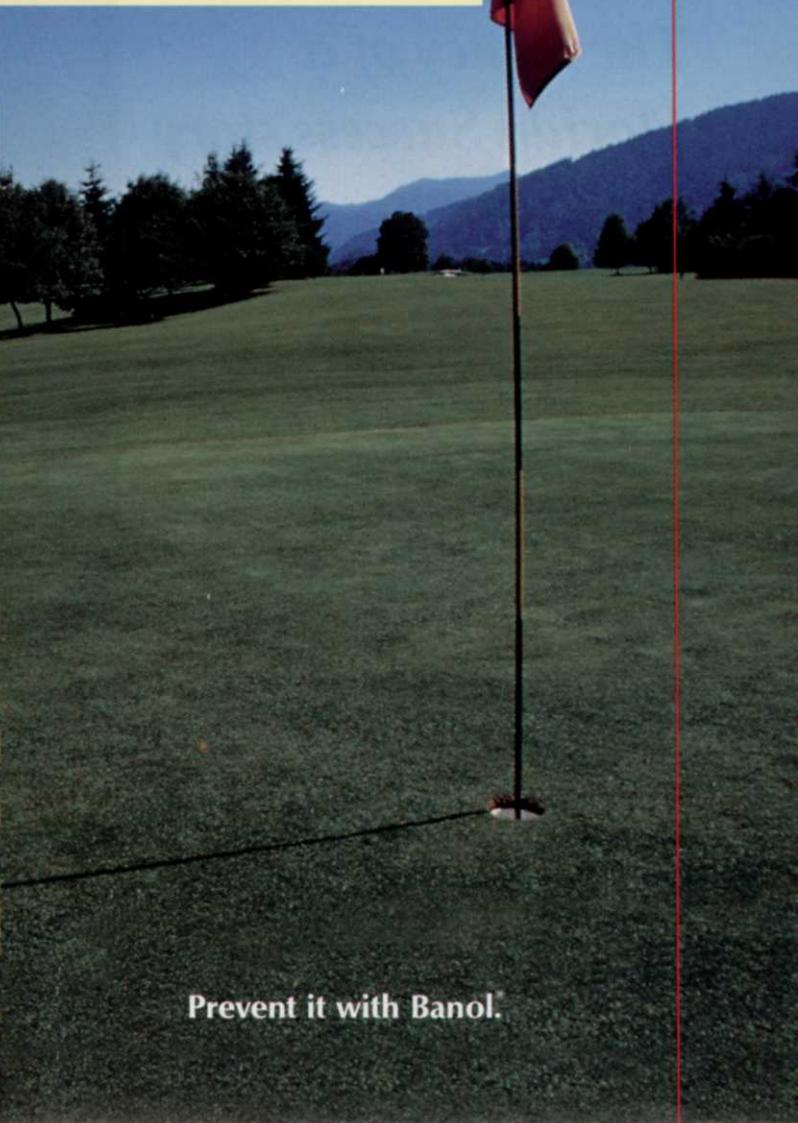
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# Fertigation:

## *The legacy of a Florida Success story*

BY DR. JOHN L. CISAR,

*Associate Professor  
University of Florida/IFAS  
Ft. Lauderdale Research and Education Center*

**I**n Florida, fertigation systems are almost as common as PCs are in the home, or in a golf course manager's office. Yet not that long ago, both fertigation systems and the PC were relatively new technologies that were not universally adopted or accepted (Benneyfield, 1972). Go back a few more years and these present-day necessities were just someone else's dreams.

Actually, it was nearly 50 years ago that Dr. Roy Bair (1949, 1950), a University of Florida agronomist located at the Everglades Experiment Station in Belle Glade, first discussed the successful use of turfgrass fertigation, the practice of applying fertilizers through the irrigation system.

Thirty years later, Dr. George H. Snyder, professor of Soil and Water Science at the same institution but unaware of Dr. Bair's work, verified fertigation as an agronomically-sound approach to fertilization of turfgrasses (Snyder and Burt, 1976).

Dr. Snyder, who worked on turfgrass with Dr. Evert Burt at the Ft. Lauderdale Research and Education Center, was inspired by an aggressive and progressive member of the Boca Raton Yacht and Country Club, John Church, who himself was inspired by the fertigation work being conducted by Ed Darlington and Dr. Max Brown of Liquid Ag Systems in Pompano Beach.

Prior to Dr. Snyder's involvement, no one had conducted turfgrass fertigation studies in a scientific manner that permitted a statistical analysis of the results.

Drs. Snyder and Burt, with the assistance of a high school student, Lloyd

Purdy Jr. (now with Duda Sod, Oviedo), developed a turfgrass fertigation facility in Ft. Lauderdale having randomized, replicated, plots and later, having instrumentation for measuring nutrient leaching.

Work conducted at this facility provided a scientific basis for evaluating certain commercial trials by golf courses and fertilizer companies that played a large part in the expansion of golf course fertigation in Florida.

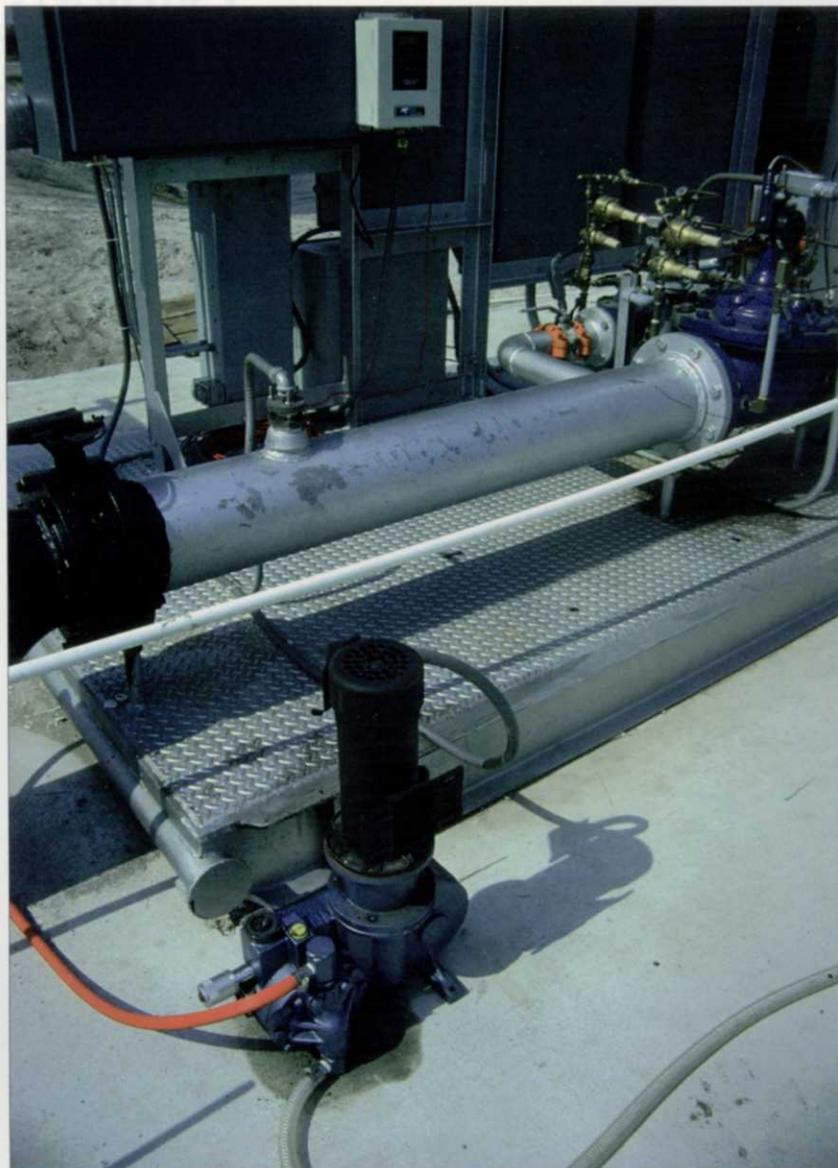
Florida and fertigation a perfect fit

Why was Florida such a good candidate for fertigation?

Frankly, the severe turfgrass growing conditions in Florida are almost ideal for adopting fertigation strategies.

First, in order to obtain the maximum benefit of fertigation (i.e., optimal nutrition from frequently applying small amounts of fertilizer) frequent water application is needed. Our climate provides that opportunity because of the high evaporative demand which requires frequent irrigation to replace evapotranspiration losses.

Second, Florida's sandy soils hold little water, making it necessary to irrigate frequently with an efficient irrigation sys-

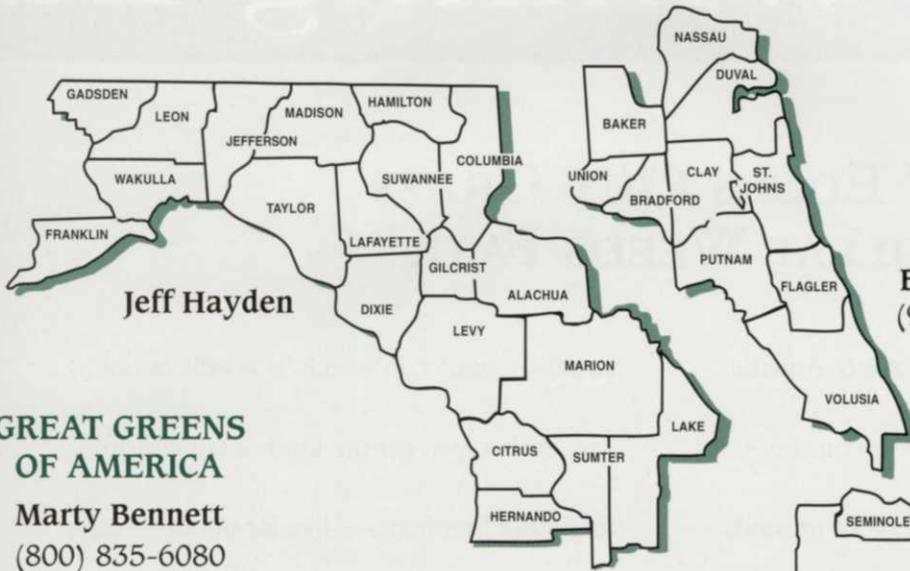


*The liquid fertilizer delivery rate of the pump in the foreground is regulated by the controller in the background to provide a preset ratio of fertilizer to irrigation water regardless of the amount of water being applied. Photo by John Cisar.*



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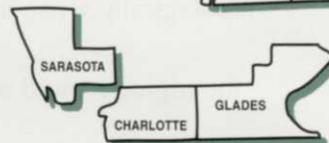
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*In order to obtain the maximum benefit of fertigation, frequent water application is needed. Our climate provides that opportunity because of the high evaporative demand which requires frequent irrigation to replace evapotranspiration losses.*

tem that provides uniform water application over the turf area, even during the traditional rainy season.

Third, Florida soils generally are infertile, and have little capacity to retain the many essential fertilizer elements that must be available over an extended period of time.

Poor nutrient retention by rapidly-draining, coarse-textured soils, high Florida turfgrass fertility requirements, high annual precipitation, and shallow potable groundwater resources, all combine to focus concern from the public on the environmental impacts associated with turfgrass management practices.

Fertigation offers the opportunity for

superintendents to accurately control the quantity and timing of required fertilizer in an environmentally-responsible manner.

Initial experiments conducted by Snyder et al demonstrated how fertigation could conveniently provide small amounts of inexpensive soluble fertilizer nutrients, such as nitrogen, to maintain high quality turf (Snyder and Burt, 1976).

Later tests confirmed the utility of the application method to stabilize turfgrass nutrition by keeping a consistent amount of fertilizer within the relatively shallow turfgrass root system and available for absorption by the grass (Snyder et al., 1989).

Finally — and perhaps most importantly — because fertigation permits low rates per application, it has been proven through research to reduce nitrogen leaching better than water soluble fertilizer applied less frequently at higher per-application rates (Snyder et al., 1977), providing results similar to those obtained with expensive controlled-release fertilizers (Snyder et al., 1984).

Thus, since fertigation provides a practical solution for agronomic, economic, and environmental concerns it is clearly understandable why it is so widely adopted by Florida golf course managers today.

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*Because fertigation permits low rates per application, it has been proven through research to reduce nitrogen leaching better than water-soluble fertilizer applied less frequently at higher per-application rates.*

**Fertigation methods**

Fertigation is best used to apply fertilizer to turf in frequent, but low per-application rates. Total fertilizer application over time may remain the same as is used for conventional fertilization with dry sources, although many users have reported that lower fertilization rates can be used when fertigation is employed.

The key advantage of fertigation is that the total application of fertilizer can be split up into light, frequent doses of nutrients that can be readily absorbed by the turf without requiring much more labor than is needed for the irrigation itself.

Since the turf is fertilized frequently, growth is consistent over time, and since the per-application rates are low, uptake is rapid, efficient, and there is little unadsorbed nutrient left in the soil solution to leach into the groundwater.

The cost of fertilizers for fertigation

should be very competitive with their dry counterparts, and, in fact, should be much lower than controlled-release sources.

The fertilizer can be delivered in liquid form directly to a storage tank, or in some cases via an inlet pipe connection conveniently located near an access road some distance from the storage tank. Liquid fertilizers can be pumped over distances and elevations without the manual effort required for moving dry fertilizers.

Generally fertigation should be used for nutrients that are difficult to manage in the soil, i.e., that are not retained well in the soil. Examples include nitrogen in virtually all soils, potassium in sand soils, and micronutrients such as iron and manganese in calcareous soils.

Nutrients such as calcium, magnesium, and phosphorus are retained well by many soils and can be applied infrequently at relatively high rates. Fertigation is less advantageous in these cases, par-



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ticularly if these nutrients lead to a less soluble and stable liquid mix.

Fertigation does not have to be the sole fertilization method.

It often is better to use fertigation to provide a uniform rate of fertilization over a golf course, and then supplement greens, tees, and other high-use areas with foliar, drench, or dry fertilizers, as opposed to attempting to apply varying rates of fertilizer by fertigation differentially over the course.

Additional instructions and suggestions for using fertigation on golf courses have been published elsewhere (*Snyder and Burt, 1974; Snyder and Burt, 1977; Snyder and Burt, 1978; Snyder 1979; Snyder 1987; Snyder, 1994*).

New and innovative uses of fertigation for turf

What about the current research trends and uses for fertigation systems?

Actually, the method of fertigation hasn't changed too much, although the newer injection systems are more sophisticated and often use flow-sensing devices to maintain a constant, though adjustable, concentration of fertilizer in the irrigation water.

But the original concept remains. What has changed is the array of chemicals injected with fertigation systems. Initially designed to inject inexpensive, soluble, inorganic nutrient sources, fertigation now is being considered for application of various soluble organic-based nutrients, organic matter extracts, and biostimulants.

Such studies are under consideration for study at the FLREC.

Fertigation has been adopted for solving other turfgrass agronomic problems as well.

In certain parts of Florida, high calcium carbonate levels in irrigation water from dissolved limestone along with appreciable lime in the soil can result in high-soil-pH-induced micronutrient deficiencies, and in reduced percolation due to precipitated carbonates.

Fertigation systems have been designed to monitor irrigation water pH and automatically inject pH-reducing chemicals into the water to obtain a desired pH. Gypsum (calcium sulfate) in-

jection into irrigation water is used to displace sodium from clay minerals, thereby promoting flocculation of the clays with a concomitant improvement in soil structure and water penetration.

Originally, these systems were designed to combat the adverse agronomic impacts on crops, and now turf grown in high sodium-affected clay soils throughout the arid west.

They now are being marketed to combat sodium-affected turfgrass areas in

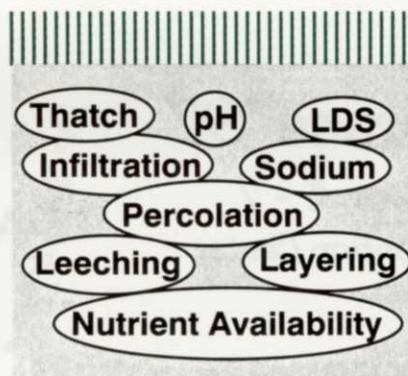
Florida, and may have some utility in coastal areas with high levels of saltwater intrusion.

Testing of one such gypsum injection system at the FLREC was considered earlier this year by a California-based vendor. However, the FLREC soil and water conditions were judged by the vendor to be of sufficient quality to negate the potential usefulness of the system.

The test system was, however, in-

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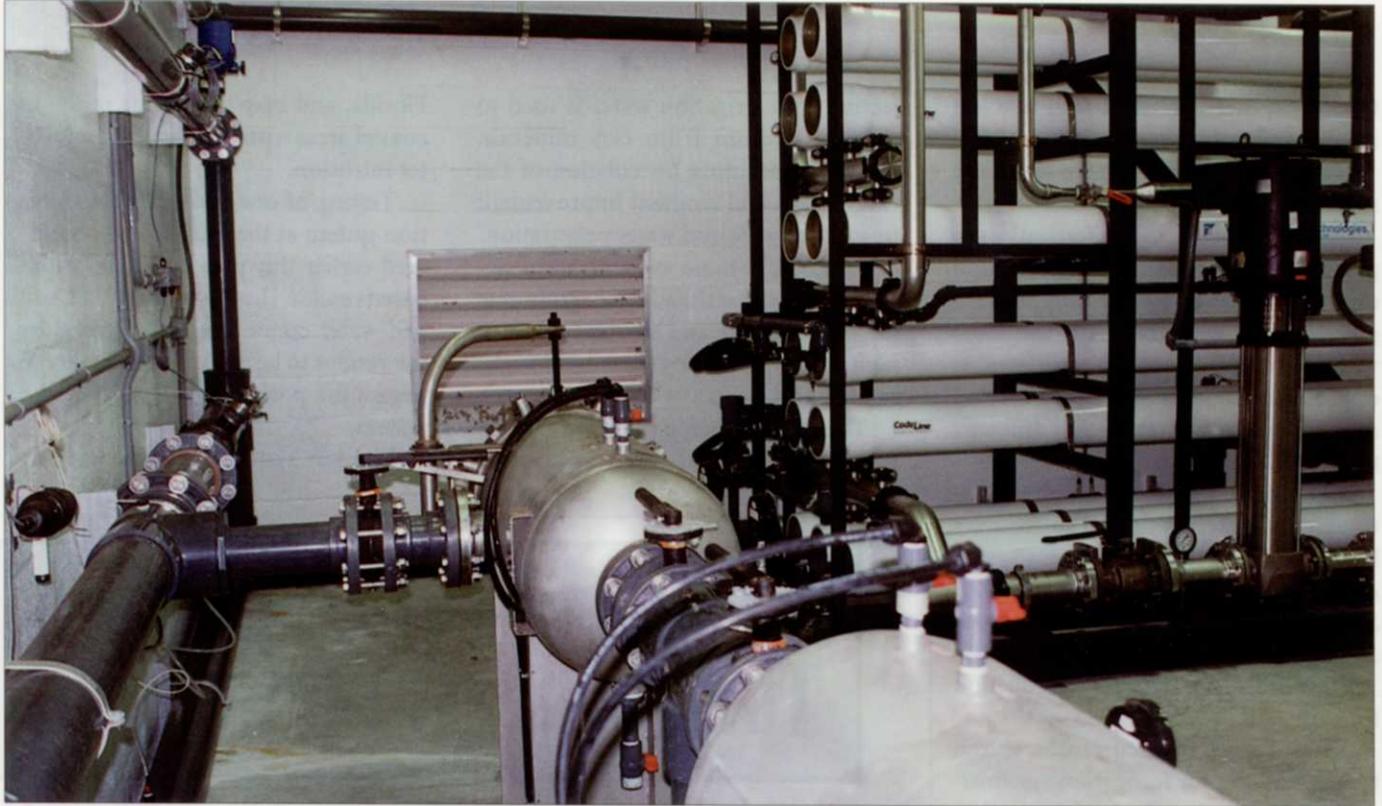
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stalled in early 1997 at a golf course in Jupiter, and we await the results of that test.

**Conclusion**

Fertigation has evolved from a questionable golf course fertilization technique to a commonly-used method of maintaining high-quality turf. Fertigation has been shown to stabilize turfgrass nitrogen nutrition and minimize nitrogen leaching.

Today, fertigation systems are being used to apply chemicals for various purposes other than fertilization. The future may see the use of fertigation systems for applying various organic and biological compounds that assist golf superintendents in providing quality turfgrass.

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# Florida Club Course Designer Dick Gray Uses Georgia Grass On His Greens.

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# The New Networking

BY JOEL D. JACKSON, CGCS

**L**ove it or hate it, the computer age is here.

I'm not much of an Internet surfer, but I have done some exploring for hotel and airline prices. However, I do like the ease and speed of e-mail and have taken advantage of that aspect to conduct file transfers with our publisher, Larry Kieffer at Janlark Communications.

That means no more reams of fax paper piled up on the bedroom floor. Instead, just the friendly America On Line voice telling me "You've Got Mail!" when I sign on.

A click on the Download Button and a few minutes later the word-processed stories I sent Larry a few days ago are back in my computer in PageMaker publishing layout for me to proof, edit and send back for printing.

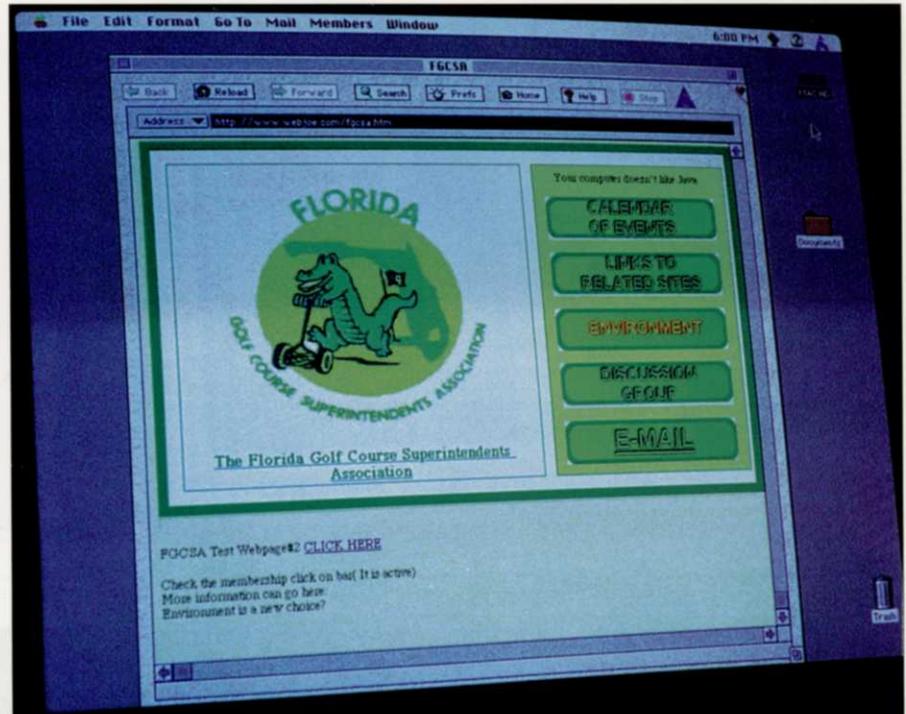
I have also been e-mailing IFAS professors for research stories; Shelly Foy for Stewardship articles; and Darren Davis with information on FGCSA Committee work and *Florida Green* articles.

I keep in touch with a dozen or so superintendents nationwide through a loose network affectionately called the SBBB or (Surly Beer for Breakfast Bunch). A few of the SBBB have met twice (face to face) at the national conference and shows in Orlando and Las Vegas.

One day when I was messing around I clicked on the Members icon on the AOL menu bar and dragged down to Membership Directory.

Up popped a window directing me to type in key words to help me locate people with the same likes, dislikes, hobbies, interests and occupations. I typed in "golf course superintendent" and found 213 screen names of people who had indicated that occupation in their AOL profiles.

By scrolling the list I located 23 Florida superintendents who identified themselves as golf course superintendents. I



Sample web page for proposed FGCS site.

made up an e-mail list of those screen names called Florida Supts. I can now e-mail all 23 of them simultaneously with one click of the Send Button... and I have!

There is no telling how many superintendents are really out there on line because many people choose to remain anonymous and do not fill out profiles and many more use local independent service providers for Internet access rather than America On Line or CompuServe.

Several times a week I log into the GCSAA Members Only Discussion Forum at the GCSAA Web Site and check the posted topics to see if there is anything of interest to me or if I can answer a question that is posted.

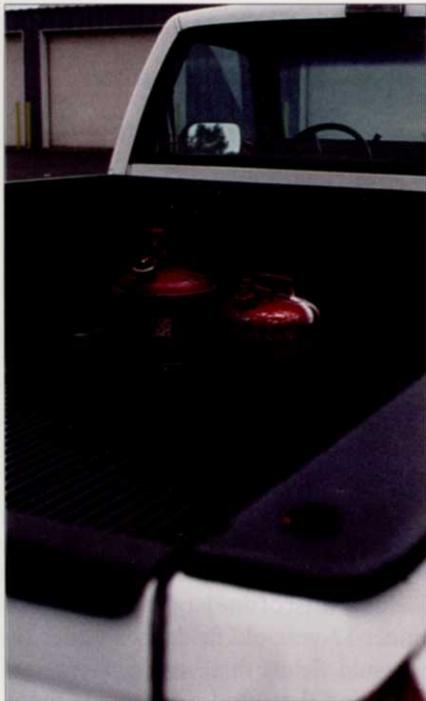
I also check out the "What's New" link to get the latest press releases and announcements. GCSAA is working on set-

ting up a link so you can register for the Conference and Show on line.

The ability to communicate instantaneously and send and receive large amounts of information electronically is changing our lives and the way we do business. We must embrace these advancements and mold them as useful tools for our own progress as individuals and associations.

Even now the FGCSA is looking at establishing a web site to provide information to its members and to the World Wide Web with a links to other appropriate web sites.

**Editor's Note:** The FGCSA Education Committee is finalizing plans to offer a computer training seminar at the 1998 Crowfoot Open. If you're interested, contact me or Darren Davis and stay tuned for details.



Gas cans and plastic bed liners make for a potentially dangerous combination. Photo by Joel Jackson.

# Safety Alert!!

**Don't fill gas cans in pickup trucks with bed liners.**

**Y**ou or your employees are at risk of serious injury or even death if you fill gas cans that are sitting in the bed of a pickup truck with a bed liner.

Chevron USA has reported several instances of metal cans exploding while being filled in the backs of pickup trucks at service stations. At least 23 injuries or deaths have resulted.

In a warning published in Chevron's Marketing Bulletin 36-1904, Chevron said that the insulating effect of the plastic liners found in the back of many pickup trucks prevents the static charge generated by gasoline flowing into a metal can from grounding.

As the charge builds, it can create a static spark between the can and the gas nozzle resulting in explosion or fire.

Although it has been suggested that placing a rubber mat under the can while it remains in the pickup bed may eliminate the danger, that may be ineffective. It is not recommended as a safety precaution.

Chevron USA advises workers to place cans on the ground, away from vehicles and people, when filling them to minimize the danger of fire and explosion.

(This article was reprinted with permission by Thomas P. Kerr, Inc.)

-Don McCommon, GCS  
Fairways G.C.

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## Floratex: First Year Impressions

BY SCOTT BELL, GCS

*Bent Pine G.C.*

**T**he Indian River Soccer Association in Vero Beach decided that the players deserved their own soccer fields. For many years the fledgling association played on whatever substandard fields they could find. The turf almost always was bahiagrass and, depending on the time of the year, it was a blessing if the grass had been mowed.

Fire ant mounds were common obstructions and holes and sand spots posed constant threats. The association and Indian River County finally reached an agreement for the association to build fields on county land.

In 1995 land was cleared and fill was brought in. The local chapter of the Florida Irrigation Society installed the irrigation system consisting of a 4-inch artesian well with a 10 hp pump and Toro 2000 heads. By September 1995 the

irrigation system was complete, the electric power was installed and the final grade was established.

Quality Grassing installed the FloraTex sprigs, and Roger Welker grew in the fields.

Unfortunately we got a late start due to some circumstances beyond our control, and we entered November with month-old sprigs. Luckily we had a warm enough fall to get a fairly decent cover before winter.

Roger employed a grow-in program similar to that used to grow-in a golf course, with a heavy reliance on ammonium sulfate and other fast-release fertilizers. By late December the decision was made to overseed the fields to give them color and to fill any voids that existed. The fields were seeded at about 250 pounds per acre, and that gave a good cover for our first season. By April the ryegrass was fading and the FloraTex was starting to grow.

I considered last summer to be the true grow-in period. I did a couple of fertilizer applications in June and Sep-

*It can take the abuse of the kids playing the games and it still looks great.*

tember and we got the turf fully covered. The soil that had been used as fill was full of rocks and debris which kept surfacing all summer, causing damage to the mower. By fall most of the rocks and debris were gone and the fields were in great shape for the fall season.

The Indian River Soccer Association Fields consist of one large adult field, two under 12-year-old fields, two under 10-year-old fields, three under 8-year-old fields and three under 6-year-old fields. These take up 14 acres. Games are played on Saturdays and Sundays. There have been weeks where there have been over 50 games a weekend.

FloraTex has impressed me particu-



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larly for sports fields though I also think that it could have some golf course applications. The grass has very good drought tolerance as most Bermudas do. What I really noticed is how tight this grass is.

The stolons do not get leggy like 419 can. The grass looks as good at the beginning of the season as it does at the end. It can take the abuse of the kids playing the games and it still looks great.

I think that because it is so tight it doesn't damage easily.

Perhaps FloraTex's greatest asset is its ability to resist the cold and stay green. The field is unprotected and susceptible to the wind. I've noticed that the fields turn off-color later and they green up faster than my golf course.

It has been very interesting managing this new grass. I would recommend it for any sports turf use. FloraTex should be given a chance on sports fields and common areas.

# E<sup>DU</sup>CATION

## Earn While You Learn

Some of the most consistent advice that successful superintendents offer over and over again is to "never stop learning," "learn something new every day," "the more you know the more you grow."

Here is the latest schedule of university-level regional seminars to be held in Florida for the remainder of the year. If you can't travel far, these seminars will provide great information for your personal and professional growth and development and also meet CEU recertification requirements for certified superintendents.

### 1997 GCSAA Regional Seminar Schedule in Florida

August 6, 1997. "Enhancing Your Value as a Professional Golf Course Superintendent" at the Palm Beach Holiday Inn. Co-hosted by the Palm Beach GCSA.

September 4, 1997 "Lake and Aquatic Plant Management" Tampa Convention Center or Hyatt Regency. Co-hosted by the FGCSA on the day before the opening of the Florida Turfgrass Association Conference.

November 20 & 21, 1997 "Managing People for Peak Performance and Job Satisfaction" at the Royal Caribbean Resort. Co-hosted by the Central Florida GCSA (first two-day seminar!).

December 4, 1997 "Improving your Negotiating Skills" at The Meadows. Co-hosted by the North Florida GCSA.

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The (+) icon identifies those correspondence courses that fulfill requirements for the six specializations in the GCSAA Environmental Management Program.

**Emergency Planning and Community Right-To-Know (+)**

This correspondence course will help you understand and comply with the federal Emergency Planning and Community Right-to-Know Act, which may affect your golf course maintenance op-

*The courses are designed to be completed in seven to 14 hours and include reference materials that can be added to your professional library.*

eration. You will also receive instructions on developing a chemical emergency preparedness plan specific to your workplace. Tips on crisis communication round out this course. Continuing education units 1.4 Code # 30150 \$100 member/\$150 nonmember

**Hazard Communication Program (+)**

By completing a series of exercises and activities designed especially for golf course operations, you will develop the materials required for compliance with the Hazard Communication Standard.

The exercises involve a drawing of your golf course facility, an inventory of hazardous chemicals, a compilation of MSDS's, and the development of procedures for employee training and maintaining documentation. This correspondence course or the seminar, Developing Your Hazard Communication Program, satisfies a study requirement for the Employee Safety and Right-To-Know specialization in the Environmental Management Program. education units 1.4 Code # 30225 \$100 member/\$150 nonmember

**Media Relations (+)**

This course will provide you with the skills needed for responding to or initiating contact with the media. You will learn how the news media operates and how to talk to reporters. Story writing, establishing media contacts and public relations are discussed in detail. Continuing education units 1.4 Code # 30175 \$100 member/\$150 nonmember

**Personal Protective Equipment for Pesticide Applicators (+)**

This course provides EPA-approved information regarding the use, care and cleaning of personal protective equipment (PPE). Examples provide pesticide label interpretation, as well as worksheets, to help organize label requirements. This information will also help employers who fall under the EPA's Worker Protection Standard. Continuing education unit .7 # 30275 \$100 member/\$150 nonmember

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To order a GCSAA correspondence course contact the GCSAA at 1-800-472-7878.



## FGCSA Spring Seminar

# Education For Us and the Kids that ride the Yellow Bus

BY DARREN DAVIS

*Golf Course Superintendent  
Olde Florida Golf Club*

The EGCSA Spring Seminar was held Friday, April 25 at the beautiful, peaceful La Playa Beach Resort in Naples. The event was co-sponsored by the FGCSA and the FTGA. An outstanding lineup of speakers was on hand to give the audience of over 80 a very educational experience.

Six continuing education credits were granted for state pesticide license renewal

and .5 CEU's for GCSAA recertification. The funds raised in this event will once again be used to support local schools in the Audubon Cooperative Sanctuary Program for Schools — a program cosponsored by the GCSAA to help educate the youth on the environment.

The first on the list of speakers was Ken Mangum, CGCS, Atlanta Athletic Club and GCSAA director. The title of his presentation was, "The Golf Course Superintendent as a Professional." Ken informed the audience that he felt there were five areas to determine if you are a professional: attitude, performance, knowledge, image, and polish or "style." Ken began the presentation discussing these five areas.

To help illustrate the first one, attitude, he told a story of two boys who had gone to see a psychologist. The boys were put into separate rooms, each with a two-

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way mirror so the doctor could monitor them.

The first boy was put into a room full of wonderful toys, but instead of playing with the toys, he just sat and looked at them. After 30 minutes the doctor entered and asked the child why was he not playing with the toys. The child responded that he just knew when he started playing with them his mother would come and tell him it was time for dinner and he would have to put everything away.

The second boy was put in a room filled with horse manure. Within minutes of being in the room, horse manure was flying everywhere and he was covered from head to toe. After a few minutes, the doctor entered the room and asked what the child was doing. His response was that, with all of the horse manure in the room he just knew there had to be a horse to play with in there somewhere.

The point was you need to look at your own attitude and determine if you are an optimist or a pessimist.

Ken's presentation made each audience member take a look at him/herself and think how they present themselves and how they are perceived. He stressed that image is everything.

Ken also urged the audience to play golf whenever possible. To stress the need, he told another true story of how he was hired for his current position.

Several years prior to accepting his current job at the Atlanta Athletic Club he had played a round of golf with an

executive from the Goldkist Corporation. At that time the executive offered Ken employment with Goldkist. He declined because of his desire to remain a golf course superintendent.

Several years later Ken received a phone call from the same gentleman who was currently head of a search committee to find a golf course superintendent at the Atlanta Athletic Club.

In a very short period of time, Ken was hired. Ken felt it was certainly due in part to that round of golf several years prior, and how he presented himself at that time. Ken stressed the importance of playing golf, not only to see the golf course from a player's point of view, but equally important, because you never know whom you are going to run into on the course.

Ken ended his presentation with another of his numerous, funny stories that make you do a little soul searching, this one about a drive that Ken and his family took one Sunday afternoon after church.

They got behind a little old lady probably on her way to Sunday dinner after church. She drove a car with a bumper sticker that read, "Honk if you Love Jesus." Ken being a Christian, and a little bit of a jokester, honked his horn in response to the sticker.

The little old lady responded to Ken by extending her middle finger indicating to Ken what she thought of the horn blast. The point Ken was making is that it can take a lifetime to build a reputation, but only a minute to destroy it. So no matter how hard you work at being a

professional, you could blow it very quickly if you are not careful.

The second presentation was by John Piersol, director, Lake City Community College Landscape and Golf Course Operations program. John's presentation was on "Golf and Landscape Education—Where Are We Heading."

John has been at LCCC for 23 years and he gave some of the history behind the program. He stressed that we as industry have a large impact on the direction of the program. John told the audience what he felt makes the AS degree at LCCC unique.

Currently LCCC accepts between 30-32 students and is graduating 27-29 each year. John felt regardless of some of the grumbling in the industry that there will always be a place for a well educated, trained, turf professional.

By the time John's hour presentation was complete he had mesmerized most of the audience and had them saying Rah, Rah, Rah Lake City. He may have even had a few ready to re-enroll at Lake City and go through the program.

Gary Grigg was next on the docket and his presentation was titled "Low Input Management." This was a very timely presentation.

As most would agree, golf course superintendents are going to be required to maintain, or improve, the current standards of golf course maintenance, while at the same time do so with fewer inputs.

Gary felt the two driving forces behind low-input management are, a perceived dwindling of natural resources and

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***'The Golf Course Superintendent is going to have to be willing to devote time and effort to understanding the big picture — that is soil, turf, weather and how they relate as a whole.'*** -Gary Grigg

the need to be environmentally sound. The challenge he felt was for golf course superintendents to maintain the current expectations while at the same time use fewer inputs.

The inputs that Gary felt we would be expected to use less of are things such as water, fertilizer, pesticides, and mowing frequency. Gary felt a key to this approach is to have a proactive plan.

"The Golf Course Superintendent is going to have to be willing to devote time and effort to understanding the big picture — that is soil, turf, weather and how

they relate as a whole," he said.

He challenged the audience to see how far they could go with fewer inputs without reducing quality. Gary felt most of us would be amazed to find out what we could do with less.

Gary agreed with a comment made by John Piersol in an earlier presentation in that the need for quality people will increase in the future, especially those that are well versed at low-input management.

After a short break, Dr. J. M. Vargas was next to speak. It was an honor to have Dr. Vargas, the recipient of this year's

GCSAA Distinguished Service Award. Dr. Vargas has been a professor of botany and plant pathology at Michigan State University for the past 25 years.

Speaking of the award Vargas said, "It really means a lot, because I work with superintendents and my best friends are golf course superintendents." This attitude was evident in his presentation, "Pesticides—The Rest of the Story."

Dr. Vargas began working on this presentation after he became irritated by the false reporting and partial truths portrayed about golf courses by the media.

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In particular he cited a radio spot he had heard by Paul Harvey denouncing golf courses as void of wildlife. Dr. Vargas showed many slides of wildlife and he explained his views on that subject. Obviously these views differed from Paul Harvey's false comments.

Vargas presented facts such as, "There are two million more song birds in the US than there were in the late 16th century." A fact obtained from the US Fish and Wildlife Federation.

Dr. Vargas also stressed that there is a big difference in the "perception" people have and "reality," a case in point being pesticides. People are quick to jump up and down and scream that we should ban pesticides but in reality the same people are exposed to much more harmful compounds every day.

He blamed this situation partially due to the wording our industry uses to define plant protectants. We refer to them as pesticides yet the medical profession refers to the same chemicals as medicine.

A case in point is Miconazole or Micoazole. Both products are used to control fungus in some very sensitive areas of the human body. However, the chemical is the same one that golf course superintendents use to control fungus and is considered bad by many people.

Why is that? The same holds true for many prescribed antibiotics and other medicines. In fact, the same chemical that is in Quell, a medicine to control head and body lice, is in Lindane.

Would the average homeowner spray

***There are two million more song birds in the US (now) than there were in the late 16th century.***

Lindane on their head or body? Probably not.

Another good example of this is Ortho Sevin. Again, most people are scared to death of the "pesticide;" however, the same people will probably spray their dog with a "doggie spray" such as Sergeants Flea Spray. Again, it is the same chemical!

Naturally occurring plant toxins was another area that Dr. Vargas discussed.

He explained the naturally occurring method that plants use to defend themselves from pests. They develop natural resistance by incurring natural toxins inside themselves. However, these toxins are not regulated by the EPA.

Dr. Vargas gave the scenario that often a naturally grown "organic" food would be more dangerous than one treated with surface-applied pesticides. At least a surface-applied synthetic pesticide can be removed by washing.

One example he presented the audience with is the use of pepper — something many of us use every day, often to replace salt since we have been told salt is bad for us.

However, did you know that scientist have proven that the toxin in pepper "peperine" can be very toxic? It is a fact that when rats were fed 4 mg of dried pepper a day for 3 months, every rat developed cancerous tumors.

So do we just stop eating? Dr. Vargas was quick to say of course not.

He explained it is "dose that makes the poison." Many of the things we eat daily have LD50 numbers higher than many pesticides golf course superintendents use but it still takes high doses to be harmful.

One of Dr. Vargas' most convincing fact was on the chemical Alar. Many of us remember back a couple years ago when the "Alar" story aired on national television narrated by Meryl Streep.

Having an actor narrate a so-called serious story such as this should have thrown up a red flag, but to many it did not. For those of you who do not remember the story, it was alleged that we should all be concerned about a pesticide used by apple growers known as Alar. The story sent shock waves around the whole country.

However, there was one little fact left out of the story: for Alar to be dangerous, you would have to ingest 28,000 pounds a day for 10 years!

Back to the home state of Florida, the next speaker was University of Florida turfgrass breeder, Brian Scully. Brian explained where the University of Florida turf breeding program has come, and where it is headed. His breeding goal is to produce quality bermudagrass that re-

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quires reduced inputs, has a better adaptation to stress, and has as good or better turf quality.

The final presentation was given by Dr. Jeff Krans, Professor, Department of Agronomy, Mississippi State University. Dr. Krans is a graduate of Michigan State and has been teaching at Mississippi State University for 22 years.

Dr. Krans is also involved with turf breeding and will be releasing his most recent variety this fall known as MS-Supreme.

Dr. Krans began his presentation with an overview of how bermudagrass came to be in America to illustrate how far we have come in turf breeding. Dr. Krans was able to explain in easy-to-understand terms where the new varieties of ultra-dwarf bermudagrass are coming from.

Quite simply, all but one are found dwarf mutations on existing greens. MS-

Supreme is one of 89 selections that were found several years ago. After three or four years of testing these off types, the best — known as MSP40 — was decided upon to be released as MS-Supreme.

Interestingly MS-Supreme was selected from an existing Tifgreen green, whereas Champion and Floradwarf are both mutations found on a Tifdwarf green.

As most of you know, Tifdwarf was a chance mutation found on a Tifgreen green. Therefore, all three of these new ultra-dwarfs are essentially a mutation of Tifgreen.

TW-72, or Tifeagle, is a little different in that it is an induced mutation of Tifway.

Dr. Krans stressed that these grasses may not be for everyone. Regardless he felt that we are truly in a historic time since it has been over 30 years since we have had any new varieties of

bermudagrass for greens released.

The day ended in an open forum panel discussion excellently moderated by Tim Hiers, CGCS, of Colliers Reserve. The moderator and audience probed the panelist both individually, and as a group, on a variety of issues.

Continuing education is obviously vital to remain aware of trends and new items in the turfgrass industry. The EGCSA Spring Seminar once again provided an outstanding lineup of talented speakers that kept the audience entertained the entire day.

As I write this short summation of the days' events I think it finally hit home how much I had learned that day. For those of you that were unable to attend, I urge you to strongly consider a short drive over next year to our little slice of paradise. I can bet you will be a wiser golf course superintendent when you leave.

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## Jacobsen announces degree for turf equipment technicians

Jacobsen Textron will sponsor the turf industry's first two-year associate degree program for turf equipment technicians. The program will be offered at Texas State Technical College in Waco. Jacobsen has also established two annual scholarships for students participating in the program.

Developed jointly by Jacobsen's training staff and the college, the technicians' program combines a curriculum focused on a solid understanding of hydraulics, electrical and engine principles, along with hands-on training.

"Jacobsen chose Texas State Technical College because of its strong mechanics' program and an active advisory committee for its golf course and turfgrass management studies," said Tony Saiia, Jacobsen vice president of customer service & product support. "The school has excellent training labs, as well as several holes of golf which provide perfect 'real life' areas for learning about turf equipment."

Saiia added that program developers agreed that technicians and mechanics should have a clear understanding of the day-to-day demands of turfgrass maintenance, in addition to their technical equipment training.

"Our intention," said Wallace "Tinker" Clift, CGCS, who heads the Golf Course & Turfgrass Management program at the college, "is to meet the demands that the golf and grounds maintenance industry has placed upon us in recent years. We want these students to receive both technical training in the classroom and field experience in an approved work situation before they graduate."

Jacobsen has also established two annual scholarships to provide additional support for the program – the Wayne Snell Memorial Scholarship and the Steve Moffett Memorial Scholarship. They are named in memory of two turf professionals who were associated with Jacobsen



*A combination of classroom and hands-on training will stress hydraulics, electrical systems, engine principles and more.*

## Lake City CC GCO program

Florida's Lake City Community College's also has an Equipment Technician program. In fact, the one-year program annually graduates about 25 technicians, who have more than 100 job offers waiting for them. John Piersol, chairman of the LCCC program, said he receives calls each year from as far away as Louisiana, Tennessee, Texas and North Dakota from courses looking for trained technicians.

Piersol said he is happy to see the new program at Texas State Technical College and the development of the EETC's efforts to help organize a national effort in preparing qualified people for a rewarding career in golf course maintenance.

"As an industry we are definitely lacking in providing well-rounded technician training for the mechanics who must manage shops and repair today's sophisticated equipment," he said.

"Part of the problem is that educational institutions don't really understand the golf industry. It takes a lot of capital up front to outfit a proper teaching facility.

"Having the proper person head up the program is the final piece of the puzzle. He must be a very pro-active person with good organizational and managerial skills as well as the mechanical background."

Piersol knows that it will take a combined effort from all sectors of the industry to make some sort of standardized and officially recognized technician training a reality. He has suggested that maybe the GCSAA might act as an impartial facilitator for such an effort.

"We need to form partnerships with industry to develop a standardized curriculum that trains an individual for the total needs of a golf course shop operation from administration to welding," he said.

"We need to approach schools and help start the programs. In return it would only be fair that the golf industry should have a large say in who runs the program. We can't have the old high school shop teacher or votech auto mechanics/small engine repair teacher do it!"

Just as the superintendent's role has grown beyond "greenskeeping" over the years, so has the mechanic's role in running the shop. It's time to devote a little more thought to how these new equipment technicians and shop managers are to be trained for the future... and to support the process.

until their untimely deaths from illness last year.

Wayne Snell was Jacobsen's manager of product training and helped pioneer many of the training programs offered at the company. Snell was 40 when he died from a cerebral aneurysm November 2, 1996.

Steve Moffett was the president of S.V. Moffett Company, a Jacobsen distributor in West Henrietta, N.Y. Moffett was well-known for his educational interests and efforts in behalf of turfgrass students. He died October 31, 1996, from cancer.

The scholarships will be awarded to four students each year — two of the Wayne Snell Memorial and two of the Steve Moffett Memorial.

"Jacobsen is extremely proud to sponsor this new, two-year associate degree for turf equipment technicians," said Saija, "and we're excited about the scholarships. They are named for two friends of Jacobsen who believed in the power of education and who shared their knowledge with others to advance the turf industry. We're glad that Jacobsen can help carry on those ideals."

Besides assisting in curriculum development, Jacobsen is preparing recruitment materials for potential candidates to help them understand career opportunities in the turf equipment field.



**Industry leaders to  
sanction certification**

## **First EETC Board of Directors elected**

Virgil Russell, Executive Director of the Engine and Equipment Training Council, announced the election of the first EETC Executive Board and Board of Directors during the EETC's annual meeting in Dallas, May 5 and 6.

This Board represents a broad cross-section of our industry's educational and technical leadership, plus supporters from the educational field who support the industry's efforts in ensuring a future

supply of qualified technicians and improving current industry efforts in training and education.

The EETC's new president is Andrew Kuczmar, director, National Service Training for Echo, Inc. Vice president is Paul Scholten, manager, Service and Technical Publications for Kohler Company. Secretary is Chuck Bontrager, product training and education manager for MTD Products, Inc.

Treasurer is Bruce Radcliff, director of Customer Education, Briggs and Stratton Corporation. And advisor to the Executive Board is Tom Kane, assistant director, national training manager, Kubota Tractor Corporation.

General Board members include Clifford Kurkowski, president, Anoka Hennepin Technical College; Larry Case, national advisor and CEO, Agricultural Education/FFA Liaison, National FFA Center; Jerry Bernhardt, director of career and technology education, Windham School District, Texas Department of Criminal Justice; Tim Lawrence, director of business and industry partnerships, VICA;

Also Dave Krueger, technical manager, outdoor power equipment, Sears, Roebuck and Company; Dan Wallace, instructor, Outdoor Power Equipment Excellence Center, Southern Alberta Institute of Technology; Glen Whitt, dealer representative, Plano Power Equipment; Larry Frogge, distributor educator representative, Grayson Company; and Jim Starmer, distributor representative, Dixie Sales Company.

Other industry Board members include Brad Beck, supervisor, Service Publications and Training, Commercial Products Division, The Toro Company; Mark Erenz, technical service coordinator, Generac Corporation; Paul Jurgens, director of customer service, Exmark Manufacturing Company; Randy Richard, training specialist, John Deere Lawn and Grounds Care Division; and Ralph Sylvester, manager, Service Training, Jacobsen, Division of Textron.

With this broad base of support from both inside and outside our industry, and a commitment from all EETC members to "leave their egos on the doorstep,"

it would appear that the future impact of the EETC on our industry will be positive and substantial.

### **Position Statement**

The Engine & Equipment Training Council is a professional organization that promotes and supports the education and training of the outdoor power equipment service technician. As members of the EETC, we:

1. Promote and maintain documented high performance and ethical standards

- Maintain an industry-supported list of minimum competencies
- Use these competencies to validate materials

2. Support an industry-sanctioned certification process

- Basic entry level certification to be recognized as a sign of employability in the industry

- Recognize the manufacturer-specific training to be able to capitalize on foundation built through certification

- Respect the training methods of others and promote unity of effort

3. Encourage excellence in engine and equipment maintenance through education

- Serve as a resource for education institutions such as trade schools, technical schools, colleges and vocational clubs interested in supporting this industry

- Encourage educational institutions to use certification and EETC standards

4. Provide a common communication method mutually beneficial to manufacturers, technicians and customers

- Share competencies, training materials and programs with all members

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For more information about the EETC, contact Virgil Russell, EETC, 1946 S. IH-35, Suite 100-A, Austin, TX 78704-3693, Phone (512) 442-1788, Fax (512) 442-1789,

E-mail [opecert@io.com](mailto:opecert@io.com).

*Editor's Note: Mr. Russell writes that he has heard more interest from golf course technicians in Florida than any other state.*



## Advantages of 'going spikeless' touted at USGA Seminar in Orlando

BY JOEL JACKSON, CGCS

From spikeless golf shoes to genetically pure turfgrass, the USGA Regional Seminar in Orlando had something for everybody. Good news and bad news. If you want to make a dramatic improvement to your greens inexpensively and quickly, then go spikeless! That was the gist of Chris Hartwigger's presentation.

The total book may not have been written on the long-range effects of spikeless golf shoes, but one thing is for sure: 1500 clubs — public and private — across America are gambling that it's the right thing to do. The most successful converts are at clubs that do their homework and educate the members well before issuing any ultimatums banning steel spikes.

Splitting the practice putting green in half and allowing only spikeless on one side and steel spikes on the other seems to be one of the most dramatic demonstrations to compare the effects of spike vs. spikeless in a simple, definitive way.

### Other highlights

- **Creating a Master Landscape Plan** - John Ribes, Landscape Architect of J. Roland Lieber, P.A. illustrated the importance of a landscape that enhances the golf experience from aesthetics to shot values and safety. Poorly planned



*John Foy, Director of the Florida Region of the USGA Green Section, moderated the USGA Regional Seminar held in Orlando this past April. (Janlark file photo)*

landscaping can interfere with air circulation, sunlight, irrigation, traffic flow and run up labor costs.

- **Protecting Natural Resources** - Dr. Charles Peacock, Professor of Turfgrass Science at North Carolina State University, calling for some ecology course requirements in future Golf Turf Management curriculums at programs around the country. Since environmental issues have grown in importance in our industry, maybe we should be training superintendents to better understand the total relationships and impacts of golf and the environment. 85% of the public doesn't care about golf, but they do care about drinking water. Risk Assessment. Common Sense. Best Practices. "Nature never breaks her own laws!"

- **Indian River Club and Audubon** - Bobby Ellis, CGCS, and Robert Swift, General Manager, took the group on a proactive trip on getting a development permitted and then devoted to an environmentally sensitive way of life. And guess what? It pays financial dividends and that makes for a win-win situation for everyone.

- **Paspalum, The Right Choice for the Environment** - Dr. Ronnie Duncan, Turfgrass Breeder, UGA revealed the many attributes of paspalum grass varieties that can perform in less-than-ideal conditions. A grass that welcomes low heights of cut, performs well in poor soils and can tolerate higher water salinity. Definitely a grass with a future niche in our world of limited resources. Major challenge - managing thatch. May be a price worth paying.

- **New High Quality Bermudagrass for Golf Courses** - Dr. Wayne Hanna, Research Geneticist, USDA presented a look at the new generation of bermudagrasses that are being selected in response to requests and demands for better performance under lower cutting heights.

- **Purchasing Genetically Pure Turfgrass** - Dr. Earl Elsner, Director Georgia Seed Development Commission, did a lot to explain the difference between mutations and contamination that have caused so much controversy lately. A rigorous state turf certification policy that is enforced will maximize the odds of a customer getting the turf he orders, but once the breeder foundation stock is planted, the turf is at the mercy of man and machine. Contamination is more of a risk than mutation and it can come from a variety of sources.

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## Legislative session addresses water, land use issues

BY MIKE GOLDIE

*FGCSA/FTGA Lobbyist*

The 1997 Legislative Session was unique in several ways. First, Republicans controlled both the House and Senate, a first in modern time. Second, it began and ended on schedule—6:00 p.m. rather than 6:00 a.m. Third, both chambers maintained a deliberate pace, controlling the passage of bills to such a degree that of 2400 bills introduced, approximately 250 passed. Leaders in both chambers kept their promise by limiting their agendas to education, economic development and no new taxes.

The following bills would be of interest to our members:

### Water:

CS/HB 715, 1249, 131, and 1339; Introduced by Rep. Laurent

This bill became the primary water-related legislation passed in the 1997 session. The bill is a combination of the pro-business "coalition" bill, the Governor's bill and legislation filed by the chairman of the House Water Resources Management Committee, Rep. John Laurent.

The bill is a compromise bill but it does substantially protect current water users. The bill does not contain a "local sources first" provision which would have been detrimental to counties like Pinellas and Hillsborough.

MFL are minimum flows and levels and WUP are water use permits, the new term for consumptive use permits.

CS/SB 1306 and 1934; Introduced by Sen. Latvala

This is the Brownfield Legislation. Brownfields are generally those industrial or commercial properties which have actual or perceived environmental contamination. Most of these areas are aban-

doned, and this legislation is an effort to put these areas back into productive use.

### CS/SB 1660

The bill indicates that power-driven farm equipment is to be included in the 3% rather than 6% sales tax rate. Power-driven is defined as moving or stationary equipment that is dependent upon an actual power source in order to perform its purpose, i.e. conveyors, augers and vacuum pumps. This corrects a DOR ruling that such equipment was taxed at 6% rather than 3%.

### CS/CS/HB 119 and 1577

This bill is important because of its philosophic direction. The bill directs state lands be managed under a multiple-use concept rather than just for conservation and preservation. As an example, the bill directs that all parcels over 1,000 acres contain an analysis of the multiple-use potential of the parcel to industry, the potential of the parcel to generate revenues to enhance the management of the parcel, including the use of private land managers. In addition, in such parcels, buffers may be formed around areas requiring special protection but the buffer shall not exceed more than 1/2 of the total acreage.

This bill, in one broad stroke, says state-owned lands should start to pay their way and can and should be used for agriculture, sub-agriculture, and water supply and storage.

Establishment and Implementation of MFLs (Minimum Flow Levels):

CS/HB 715, et al requires the Water Management Districts to consider changes and structural alterations to wetlands, surface waters, and groundwater, and the effects such changes have had on the water resource, when establishing MFLs.

This provision would require the WMDs to consider the effect of structural changes to water bodies, such as dams or channelization of rivers, as well as the impact of major flood control works such as the South Florida WMD's Central and Southern Florida Flood Control Project.

In addition to considering the direct alterations caused by structural changes, the WMDs also would be required to

consider indirect changes, such as changes to groundwater levels or hydrologically connected wetlands. The committee substitute specifically states that the consideration in this subparagraph is not to be construed to grandfather-in significant harm caused by consumptive-use withdrawals.

CS/HB 715, et al also recognizes that some water bodies can never be restored to their historic hydrologic functions, or that it is not practicable or technically feasible do so.

In such cases, the WMDs and DEP would have the discretion to not set MFLs. The WMDs also are directed to not set MFLs for surface water bodies less than 25 acres in area, unless the surface water bodies, individually or cumulatively, have significant economic, environmental, or hydrologic value, or are unique natural resources.

Also exempt would be man-made water bodies—such as cooling ponds, drainage ditches, borrow pits and mining pits—that were constructed prior to a permitting program or are constructed pursuant to the conditions of a permit or a reclamation plan, unless they have a unique hydrologic value.

The WMDs are further directed to implement a recovery or prevention strategy if a water body falls below, or is projected to fall below, its MFL. The recovery or prevention strategy must include a timetable that will allow for development of additional water supplies to offset any reduction in permitted withdrawals. To the extent to which it is practical, the offset must be provided concurrent with any reductions in permitted withdrawals.

CS/HB 715, et al also extends the scientific peer review process to the establishment of MFLs in all five WMDs, not just three counties within SWFWMD, and makes several other refinements.

### WMD Accountability:

CS/HB 715, et al provides for staggered appointments of WMD governing board members.

Beginning January 1, 1999, in the first year of a governor's four-year term in office, the governor shall appoint three

members to the governing board of each WMD. In the second and third years the governor shall appoint two members to the governing board of each WMD, except for SWFWMD, where he or she shall appoint three members the SWFWMD board. In the fourth year the governor shall appoint two members of the governing board in each WMD, including SWFWMD.

CS/HB 715, et al also requires WMD Basin Boards to prepare post audits, and it requires each WMD to provide: 1) the tentative budget, 2) the adopted budget, 3) the past year's expenditures, and 4) the post audit to the governor, speaker of the house, president of the Senate, chairs of the legislative committees with substantive or appropriations jurisdiction, the secretary of DEP, and to each county in which it has jurisdiction.

### Duration of WUPs:

CS/HB 715, et al requires WUPs be issued for 20 years if there is sufficient information to provide reasonable assurance that permit conditions will be met. The bill allows the WMDs to require a 5-year compliance report when it is necessary to maintain reasonable assurance that the conditions of the permit can continue to be met.

The WMD may modify the permit after receipt of the compliance report. Permit modifications based on the 5-year compliance report shall not subject the permit to competition from other uses, if there is no increase in water allocation or permit duration and no change in water source other than a change requested by a WMD. The bill also clarifies that these changes shall not be construed to limit the WMDs' or DEP's existing authority to modify or revoke WUPs.

### Use of public lands:

CS/HB 715, et al would allow lands acquired under the CARL and SOR programs to be used for permissible water resource and water supply development projects if the following conditions are met:

- MFLs have been established for priority water bodies on the land;
- the project complies with consump-

tive use permitting criteria; and

- the project is compatible with the purposes for which the lands were acquired.

Water Resource and Supply Development:

CS/HB 715, et al defines "water resource development" as the formulation and implementation by the WMDs of regional water resource management strategies that range from data collection to construction of groundwater storage systems. Water resource development is declared to be the responsibility of the WMDs.

Also defined is "water supply development," which is the planning, design, construction, operation and maintenance of public or private facilities for water collection, treatment, transmission or distribution for sale, resale or end use.

Water supply development is declared to be the responsibility of local governments and of government- and privately-owned utilities, although the bill provides circumstances under which DEP and the WMDs can assist in such development.

The bill also clarifies existing water planning language and forges stronger links among the Florida Water Plan (currently called the state water use plan), the WMD district water management plans and the regional water supply plans.

The WMDs are directed to plan on a 20-year time frame the development, management and protection of water resources needed to meet the existing and reasonably projected future uses. When planning to meet these needs, the WMDs are directed to assure that water would be available to meet these needs during a 1-in-10 year drought.

WMDs are directed to initiate water resource development to ensure water is available for all existing and future reasonable-beneficial uses and the environment, and participate in the following activities:

- formulate and implement regional water resources development strategies and programs;
- collect data and conduct research to improve the use of surface and groundwater resources for water supply pur-

poses;

- implement nonstructural programs to protect and manage water resources;
- provide for the construction, operation and maintenance of major public works facilities for replenishment, recapture, storage and enhancement of surface and groundwater resources;
- encourage and promote the development of new technology to maximize the reasonable-beneficial use of surface and groundwater resources;
- cooperate with and assist public and private utilities, regional water supply authorities and public service corporations in the development of water supply delivery systems.



## Key 1997 water Legislative action

### State water policy revised in 81 pages

BY TOM BENEFIELD, CGCS

*FTGA Director*

1997 saw a major effort in the legislature of our state government to attempt to come to grips with the water needs of the state and its citizens. House bill 715 is a cumbersome, awkward and somewhat meddlesome 81-page revision on state water policy.

It is at best an attempt to reign in so-called rogue water management districts and set standards to protect our water supply, and at worst a lost opportunity to curtail the unmanageable development of the state. For it is clearly evident that only a moratorium in new housing developments in certain areas of the state will allow for resolution of water deficits and creation of new supplies upon which future development could depend.

Some of the highlights of House Bill 715 are as follows:

- The water management district governing board has power to identify specific uses on designated bodies of water as "undesirable" and can deny permits requesting those uses. Translation: Lake Okeechobee water can now go to the Everglades instead of east coast well fields or drainage ditches.

• The WMD's governing boards can designate uses as enhancing certain water bodies and can prefer those uses over other uses in the event of competing permit applications for that water body. Translation: First step in establishing minimum flows and levels (MFL).

• Requires the WMDs to consider the public recreation requirements and the protection and procreation of fish and wildlife in determining an applicant's request of water and allows the governing boards to restrict or stop those future uses if they are inconsistent with these objectives. Translation: Second step or effect of MFL and Pinellas County probably won't be able to suck Weeki Wachee Springs dry for its water source.

• By Nov. 15 of each year, requires the WMDs to submit to DEP their priority list and schedule for establishing MFLs. The list has to state which water bodies the districts plan on doing independent scientific peer review with. Translation: MFLs are a new player to water allocation. Their priority and quantity of allocation even subjected to independent scientific peer review will change forever the way water is permitted.

• Provides detailed criteria to be used in establishing MFLs. In the event the existing flow or level is below or projected to fall below an established MFL, the WMD is required to implement a recovery or prevention strategy that will provide sufficient water supplies for all existing and projected users. Translation: WMDs will become water supply developers, to create water where there is none available, a daunting task which most certainly will lead to a tripling of the ad valorem tax rate.

These are just a few of the items discussed in House Bill 715. All of the above information is true and factual except possibly for the translations which may be true and certainly are worth considering. I will examine other parts of this bill in future issues. I would like to thank the staff of our water consultants, McVicar, Federico and Lamb for their help in this process. They have worked tirelessly on our industry's behalf, and we are proud to be associated with them.

Now for a look at the issue near and

## ***It is at best an attempt to reign in so-called rogue water management districts and set standards to protect our water supply, and at worst a lost opportunity to curtail the unmanageable development of the state***

dear to my heart – “potty” water. There are new rules on the books relating to reclaimed water usage, permitting, allocation and cost. So let's review highlights of FS 373.250.

The encouragement and promotion of water conservation and reuse of reclaimed water as defined by the DEP are state objectives and considered to be in the public interest. The Legislature finds that the use of reclaimed water provided by domestic wastewater treatment plants permitted and operated under a reuse program approved by the DEP is environmentally acceptable and not a threat to public health and safety.

Reclaimed water may be presumed to be available to a consumptive use permit applicant when a utility which provides reclaimed water, which has uncommitted reclaim water capacity and which has distribution facilities which are initially provided by the utility at its cost, to the site of the affected applicant's proposed use.

The WMDs in conjunction with the DEP will adopt rules to implement increased reclaim water usage. Such rules may include but be limited to the following.

1. Provisions to permit use of water from other sources in emergency situations or if reclaimed water becomes unavailable for the duration of the emergency or if reclaimed water becomes unavailable for the future.

2. These provisions shall also specify the method for establishing the quantity

of water to be set aside for use in emergencies or when it becomes unavailable.

3. The methodology shall take into account: the risk that reclaimed water may not be available in the future; the risk that other sources may be fully allocated to other uses in the future; the nature of uses served by reclaimed water; the extent to which the applicant relies on reclaimed water; and the extent of economic harm which may result if other sources are not available to replace reclaimed water use.

4. It is the intent of this chapter to ensure that users of reclaimed water have the same access to ground or surface water and will otherwise be treated in the same manner as other users of the same class not relying on reclaimed water.

It is clear that the state wishes to promote reuse of reclaimed water. In so doing they have kept an eye on the future to that time when reclaimed water may need to serve other purposes than those at present. They have therefore authorized by law the WMDs to set aside allocations of groundwater for permit holders who convert or have converted to using reclaimed water.

Allocations for the full allotment, not just temporary emergencies. You would do well to protect your facility and investigate this subject through consumptive use permitting. The methods used, the mechanics to implement and gain access to abandoned resources must be explored at this time to ensure your rights.

# Starting in Our Own Backyards

BY SHELLY FOY

*USGA Green Section, Florida Region*

A few years ago when John and I first started becoming involved in the Audubon Cooperative Sanctuary Program for Golf Courses, we felt it was important to “practice what we preached.” So we started in our own backyard.

The Audubon Cooperative Sanctuary System has programs for golf courses, schools, corporate and business properties, as well as a program for back yards. We felt that if we were going to be encouraging people to go through the certification process, we needed to better understand what was involved.

We joined the backyard program in 1994 as a family project. In 1995, we became the first fully certified Audubon Backyard Sanctuary in the program. Going through the certification process in our own backyard gave us a better understanding of Audubon and the certification process.

In the backyard program, there are four categories: Wildlife and Habitat Management, Water Enhancement and Conservation, Energy Conservation, and Waste Management.

The certification process is similar to the golf program. You fill out a Resource Inventory for your property, and then you work toward certification in the categories.

John, Hunter, Elizabeth and I found the entire process to be educational and fun. I know that John and I learned a lot, and the effect on our children does not go unnoticed.

Our 11-year-old son, Hunter, will not



*The neighborhood gopher tortoise visits our backyard. Photo by Shelly Foy.*

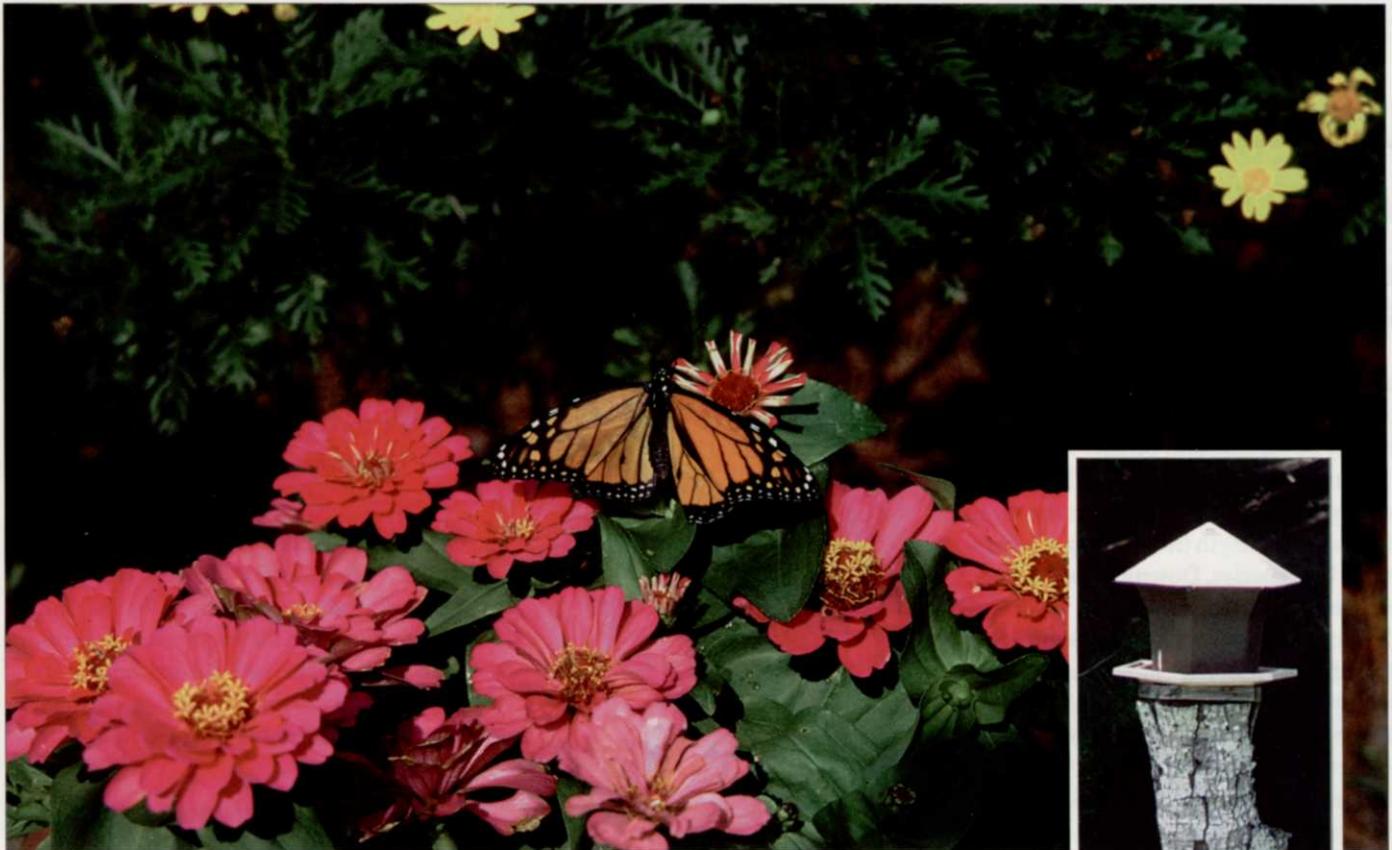


*You can't live with them and you can't live without them—when you have bird feeders in your backyard. Photo by Shelly Foy.*

***In the backyard program, there are four categories: Wildlife and Habitat Management, Water Enhancement and Conservation, Energy Conservation, and Waste Management.***



*One of four nest boxes we have in our 1/4 acre backyard. Photo by Shelly Foy.*



*My biggest stress reliever—butterfly gardening. Photo by Shelly Foy.*

tell you to look at the bird in the tree. He tells you to look at the red-bellied woodpecker in the slash pine tree. Elizabeth, who just turned 10, becomes upset because she thinks her brother knows more about birds than she does.

However, this is the same child that could name more Florida birds than the majority of us. They know about recycling and composting and the importance of saving water. They could probably write their own book about butterfly gardening and using native plants.

Yes, we hear them complain occasionally about working in the yard and yes, Hunter tells me to forget about him joining the "Weed Whacker" club at middle school next year.

However, we also see them turning the water off instead of letting it run when they brush their teeth. We note that they are the first ones to tell us that the painted buntings are at one of the bird feeders. We feel good when Elizabeth notices that the bird feeders are empty and refills them on her own.

John and I like that our family cares about nature and the environment and that we do our part to protect it. We do it,

not because someone tells us to or reminds us to, but because we want to.

As golf course superintendents, becoming involved with the backyard program is a way to involve your families in something that you do every day—work with nature. You could also use the backyard program as an educational tool with your golfers or course officials.

Call Audubon at (518) 767-9051 and ask them to send you some backyard brochures. Share these with people at your golf course. Make it a friendly competition among friends to see who becomes certified first. The cost is \$35, \$25 for seniors.

Our family encourages yours to become involved in the backyard program. Make it a family project and spend some time bonding with each other and with nature.

*This oak tree snag in the Jackson backyard in Orlando became a home for a pair of red bellied woodpeckers this spring. Photo by Joel Jackson.*



## Audubon Case Study

### Bonita Bay

Fully Certified 11/17/95

Bonita Bay consists of 538 acres of lakes and 550 acres designated for golf course that provide a diverse habitat for a variety of wildlife and birds.

Currently 108 nesting boxes have been strategically placed throughout the three courses resulting in the fledging of a variety of bird species. Downy woodpeckers, piliated woodpeckers, screech owls and flycatchers are but a few. The Bonita Bay wildlife inventory includes bald eagles, osprey, roseate spoonbills, tricolored herons, otters, bobcats, rabbits, bats, deer, squirrels and gopher tortoises.

Writes J. Mark Black, CGCS, assistant vice president of club operations:

"We are very fortunate to be a part of a large development whose objective from the beginning was a total commitment to environmental sensitivity. The Audubon Certification was a natural progression for us, and we are proud to support and be a part of its promotion in our industry."

### Resource Conservation

Habitat enhancement projects have reduced irrigation, fertilizer, and pesticide use. Biological controls, such as parasitic nematodes, incorporated to control mole crickets around lake banks have reduced the risk of runoff to water sources. In addition, pine straw is used to promote favorable plant growth around surrounding landscape trees and plants.

Further, Bonita Bay's water conservation and water quality management programs include regular water monitoring to check the spread of noxious exotic vegetation and xeriscaping to preserve native plants and conserve water. They participate in the Key Pine Tree Save Program to preserve fish, waterfowl, and human life.

"The community was the first xeriscape demonstration site, and continues to incorporate water conservation techniques and encourage residents to

### Bonita Bay Bonita Springs

Bonita Bay is a 2400-acre residential community consisting of three Arthur Hills-designed championship golf courses. The land was purchased in 1979 by David B. Shakarin to create a place where people, plants and animals would co-exist in a beautiful natural environment.

Bonita Bay is situated in Southwest Florida, bordered by the Estero Bay Aquatic Preserve, the Imperial River, and Spring Creek. Slough and mangrove preserves that are federally protected, salt flats and wetlands comprise the majority of Bonita Bay. The remainder of the community is comprised of three championship golf courses and resident neighborhoods. Bonita Bay management is committed and dedicated to preserving wildlife, enhancing habitat, and preserving the environment.

follow their lead," says Kurt Harclerode, senior public communications officer of the South Florida Water Management District.

Scouting, sampling, monitoring and recording pest activity are key components of Bonita Bay's integrated pest management program. Now in its third year of practice, these IPM measures have resulted in accurate mapping of insect, weed, and nematode areas to allow for spot treatments that significantly reduce pesticide use.

### Outreach & Education

The Bonita Bay Community Association schedules educational meetings to teach and inform residents and local special interest groups about the unique vegetation, xeriscaping, birds and plants common to Southwest Florida and protected by Bonita Bay. Their community newsletters report and incorporate photographs of wildlife and nature preservation at Bonita Bay.

Compiled by Dianne Rabkin  
Bonita Bay

## Threatened squirrels can call golf course home

BY CINDY SPENCE

IFAS Educational Media and Services

*Editor's note: Over a year ago we ran a story about a fox squirrel study being considered on golf courses in the Naples area. Since the theme for this Stewardship section is backyard habitat and a lot of backyards adjoin golf courses, we thought you might enjoy the most recent update on the project.*

A threatened species of wildlife has turned to a decidedly civilized habitat in its quest for survival, says a University of Florida researcher. Now wildlife ecologist Rebecca Ditgen is trying to determine how to make southwest Florida golf courses even more hospitable for Big Cypress fox squirrels.

"Our goal is to learn which courses have fox squirrel populations and what habitat features on those courses encourage the squirrels to live there," said Ditgen. With their own forested habitat vanishing as southwest Florida urbanizes, the fox squirrels, like many people, have turned to homes with a golf course view.

Very little is known about the Big Cypress fox squirrel, said Stephen Humphrey, acting dean of the College of Natural Resources and Environment.

"In the wild, they are very shy, difficult to see, difficult to find and almost impossible to study. In fact we've tried to study them in the wild and failed," Humphrey said. "But we found they're abundant on golf courses on the urban fringe of the coast of southwest Florida."

Ditgen said fox squirrels appear from field observations to be declining in the wild but it is unclear why. In the city, however, the reason is plain to see.

"Development is happening so rapidly here and the prime land for develop-



*Fox squirrels are native to pine forests with open understories and spend a lot of time on the ground so golf courses with open pine and cypress stands are good habitat for them. Photo by Rebecca Ditgen.*

ment, the upland pines, is also their prime habitat," Ditgen said. "They disappear shortly after intense development because they just don't do well with cars and cats and dogs."

Why the squirrels turned to golf courses for safe haven is a question Ditgen hopes to answer.

While her research requires her to spend enough time on the course to make avid golfers jealous, she says she is most likely to be found in the rough, scouring the trees and underbrush for squirrels fitted with radio collars. As she visits 60 courses in Lee and Collier counties, she records data on the squirrel numbers and landscape design. By tracking 30 squirrels with radio collars on two courses she can see how they are using their adopted habitat.

"Fox squirrels are native to pine forests with open understories and spend a lot of time on the ground so golf courses with open pine and cypress stands are good habitat for them. They seem to do well there and can move around easily," Ditgen said. "They do particularly well on courses with large stands of native palms and pines."

The Big Cypress fox squirrels have been on the threatened species list for 20 years. They differ from a common gray squirrel because they are larger and their fur can be black, blond or red.

"They're a very graceful squirrel. They leap and move around a lot and people

find them beautiful to watch," Ditgen said. "Certainly the native Floridians I talk to and the people who've been here a long time take real pride in having fox squirrels around. They like them a lot."

In a four-year research project funded by the Non-game Bureau of the Florida Game and Fresh Water Fish Commission, Ditgen will come up with management recommendations golf course superintendents can use to improve habitat for fox squirrels.

Ditgen has already learned that the squirrels have large home ranges, often more than 100 acres, and that young adults often travel more than a mile in search of an adult home range. She is also studying their feeding and nesting habits.

Part of her research also includes a comparison of highly developed courses to those in more natural environments with no adjacent homes. In one area of Naples, she has found 50 to 70 squirrels sharing three 18-hole courses lush with

***In a four-year research project funded by the Non-game Bureau of the Florida Game and Fresh Water Fish Commission, Ditgen will come up with management recommendations golf course superintendents can use to improve habitat for fox squirrels.***

cypress, pines, figs and maples—all prime habitat. With national golfing organizations and some wildlife groups encouraging golf courses to design in a fashion that is friendly to regional wildlife, many course superintendents are eager to hear Ditgen's recommendations.

Already, she said, she would recommend that courses plant more native vegetation to provide more year-round food sources for the squirrels. The exotic plants many courses use sometimes are more showy but frequently do not provide the best food for the animals.

Many golfers, curious to find out about the remarkably bad golfer whose cart seems to stay in the rough, are pleased when they find out Ditgen is a researcher and interested in learning more about sharing their green space with the squirrels.

"The idea of looking at how wildlife can use golf courses has arrived," Ditgen said.

# EGCSA, Olde Florida Golf Club to establish test green

BY DARREN DAVIS, CGCS

*Olde Florida Golf Club*

The Everglades golf course superintendents Association, in cooperation with Olde Florida Golf Club, is in the process of establishing a test green for four new varieties of "ultradwarfs." The four varieties to be planted on the 2500-square-foot chipping green are FloraDwarf, Champion, TifEagle (TW-72), and MS-Supreme. Each of the four varieties will be planted in duplicate to insure the results can be validated.

Darren Davis, golf course superintendent at Olde Florida Golf Club, explained the driving force for the idea to do the project comes from golfers. He said, "As golfers have demanded faster, more uniform greens, the existing varieties of bermudagrass cultivars for greens — Tifdwarf and Tifgreen — are becoming unacceptable. These two varieties were developed in the 1950s and 60s when golfers accepted mowing heights that were somewhat higher than what we are seeing in the 90s."

In the last few years, researchers have been studying several new varieties of dwarf bermudagrass hybrids that spread vigorously with little vertical leaf growth.

Two of these, FloraDwarf and Champion, are both fine-textured mutations found on existing Tifdwarf greens. FloraDwarf was selected from a green in Hawaii, and Champion was discovered in Texas.

MS-Supreme was found as a fine-textured mutation on a Tifgreen (328) green in Mississippi. Therefore, all three of these varieties originated from Tifgreen, since originally Tifdwarf was a mutation found on an existing Tifgreen (328) green.

TifEagle is unique in that it is a mutation that was induced by gamma radia-

tion from Tifway II, a cultivar commonly used on fairways.

"These are certainly exciting times, with these new grass varieties becoming available. However, they are still unproven and we must exercise caution to determine which one, or ones, are best suited for which location. It is side-by-side comparisons in a controlled test area, such as this test, that will help determine that," said USGA Regional Director John Foy.

Dr. Wayne Hanna, developer of TifEagle, explained, "TifEagle will require more thatch control (verticutting, top-dressing and/or grooming) than Tifdwarf to produce quality turf. However, with proper management, it will produce better quality and more dense turf at 1/8 inch than Tifdwarf."

The project is being supervised by a committee consisting of Chairman Rick Tatum, golf course superintendent, The Forest Country Club; Vice Chairman Darren Davis, golf course superintendent, Olde Florida Golf Club; John Foy, director, USGA Florida Region; Dr. Wayne Hanna, research geneticist, USDA; Dr. John Cisar, University of Florida; Dr. Jeff Krans, Mississippi State University; Roy Bates, president Florida Turfgrass Association, golf course superintendent, Imperial Country Club; Mark Black, golf course manager, Bonita Bay Club; Dale Walters, CGCS, Royal Palm Country Club; and Terry Wood, president EGCSA, golf course superintendent, Royal Wood Golf & Country Club.

Committee Chairman Rick Tatum, superintendent at the Forest Country Club in Fort Myers, said, "The test plots are going to be extremely valuable for our area. These new varieties are originating from areas all over the country, and by having them side by side in our climate

we will be able to determine which ones are best for our conditions."

The existing green is currently being renovated. Basamid soil fumigant, donated by BASF, will be used to kill the existing bermudagrass.

Following this process, the top six inches of greens mix will be removed. Additional greens mix to replace this will be donated by Golf Agronomic Supply and Handling, a longtime supporter of the Florida golf course superintendents Association and their affiliated chapters.

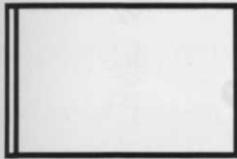
The new varieties will be planted later this summer. All four varieties will be planted in equal amounts on the same date and treated identically. The plots are vertical strips which will allow the individual varieties to be aerified and vertically mowed separately, reducing the risk of cross-contamination. The project will officially run three years from the date of grassing.

The green is used by the membership of Olde Florida and will be mowed daily at a height of cut around 1/8 inch, the preferred height for the new "ultradwarfs."

The nature of these new grass varieties will require the green to be lightly vertically mowed and lightly top-dressed frequently throughout the year to control thatch. The greens mower that will be used will be a Toro GR1000 that has been provided to the project through the generosity of the Toro Company and their distributor, Wesco Turf.

"The Toro company has been a longtime supporter of research and the advancement of turfgrass management. The greens mower is being made available through an educational program funded by Toro with support from Wesco Turf," according to Greg Wright, vice president of commercial sales, Wesco Turf.

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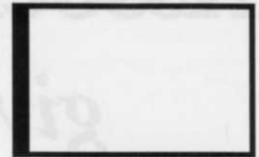
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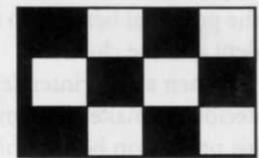
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# Association Service... giving back or getting more?

BY JOEL D. JACKSON, CGCS

**W**hen a superintendent either volunteers or is asked to serve on the board or on committees of his local or national associations, he/she has several things to consider. Am I willing to invest some of my time to help out? Can I take time away from my job if necessary? Will my employer support my decision?

The first thing a superintendent should do is talk to his/her superiors and tell them of his/her interest and desire to serve or help out. They should candidly assess and discuss how much time this service may require away from routine responsibilities. They should also discuss the potential benefits to the superintendent and the club.

When a superintendent steps up and decides to make a commitment to serve his profession beyond his daily routine, he/she is displaying qualities of leadership that should be encouraged and nurtured by his club. Involvement doesn't mean just missing work. It means that superintendent is being exposed to opportunities to grow and development in both personal and professional areas.

I know my volunteer service in local, state and national associations has helped me overcome the common fear of public speaking, which helps me when I have to make presentations at my club. By being a visible leader in my associations, I am on the leading edge for information sharing and gathering, which helps me learn new and potentially better methods for solving or avoiding problems at my club in all phases of our operation.

Those of us who have volunteered know internally how much we have personally benefited and grown from this

Volunteer Leaders' Qualities	Benefits to Employer
Visualize the future	Strong strategic and long-term planning abilities.
Inspire others	Motivate staff to do its very best work. Inspire teamwork. Earn respect.
Critical thinkers	Identify priorities, solve problems, and translate ideas into action. Define and explore alternative solutions.
Process oriented	Excel at planning, organizing, directing, controlling and monitoring —elements critical to golf course management.
Progressive	Create opportunities. Keep up to date with technology and management practices to produce the highest quality playing conditions. Open to new ideas.
Effective personal skills	Capable of working with different constituencies such as green chair, green committee, board of directors, golfers, etc.
Competent	Manage facility's resources skillfully and within budget.
Passionate	Committed to achieve facility goals.
Strong character	Honest and ethical

*Source: Leadership Handbook, 1997, 1995 Compensation and Benefits Report, GCSAA; For the Common Good, <http://ceres.esusda.gov/mission/plans/voldev/vol-5.htm>.*

service. In the May/June issue of GCSAA's Leader Board newsletter, there was a great little article that described the leadership qualities that a superintendent can develop in his volunteer service and how they can benefit his/her employer.

Pretty heady stuff, huh? It doesn't mean that everyone who volunteers and serves is going to turn into a clone of Old Tom Morris. We all have different

strengths and weaknesses. It does mean that a club that supports its superintendent who gets involved is likely to have a more effective manager because of it.

The job always comes first. It always should. But superintendents and their clubs should realize that taking advantage of volunteer service can be a win-win situation for everyone.

## GCSAA Online News U.S. golf course development continues at near- record pace

New golf course construction continued at a near-record rate in 1996, according to the National Golf Foundation's (NGF) latest report on golf course development in the United States.

Titled "Golf Facilities in the U.S./1997 Edition," it reports that 442 courses came on line in 1996. Although slightly less than the record-high 468 two years ago, it was only the second year in which new U.S. course openings have eclipsed 400.

### One more nine

Not all construction has been completely new facilities. A high percentage (40 percent) of the courses built in 1996 were additions to existing facilities. NGF's tracking data show that roughly one-third of the courses built over the past five years have been additions to existing facilities. Approximately 85 percent of these expansions have been nine-hole additions.

### Other Findings

Among the other findings emerging from this year's report:

- **Affordability** — NGF conducted an informal survey of owners/operators of all 135 new 18-hole public facilities that came on line last year to determine what percentage were high-end facilities.

This survey indicated that developers may be following a trend away from high-end projects. Only 25 percent of the 105 respondents to this year's survey said their weekend green fees were above the average for similar courses in their markets. The remaining 75 percent said they have fees that are at or below the average for their areas.

- **Public vs. private** — As it has for the past 20 years, public golf course development continued to dominate last year, with 382 (88 percent) of all courses coming on line as daily-fee or municipal courses.

- **The average weekend green fee** — including golf car fee — was \$56.

Geographically, the averages were higher

among West region courses. Here they ranged from \$70 to \$80, compared with the Midwest and South, where they ranged from \$30 to \$45.

- **The real estate factor** — Although not as much of a factor as it was in the 1980s, golf community development continues to drive a good share of today's golf course development activity. Last year, 144 (33 percent) of the new

courses were part of a real estate development.

- **Beginners' slopes** — Industry observers have long believed that success in growing golf participation will depend to some degree on the increase in entry-level facilities. Last year, 21 executive courses and 20 par-3 layouts were among the 442 courses built.

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1997 Photo contest - Wildlife on the Course.  
Great Blue Heron, Disney's Osprey Ridge GC.  
Photo by Joel Jackson

## 3rd Annual Florida Green Photo Contest under way

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

**Category 2 - Course Landscape: Formal Plantings:** includes annuals, shrubs, trees, entrance and tee signs.

**Category 3 - Course Landscape: Native Plantings:** includes aquatic vegetation, grasses, shrubs, trees and wildflowers.

**Category 4 - Scenic Hole Layout Shots:** includes sunrises, sunsets, frosts, storms and any other golf hole view.

### Prizes

- 1st Place (\$100) and 2nd Place (\$50) in each category
- Editor's Choice-Best Overall Photo - \$100.
- All winning entries published in the Fall 1997 issue.

### Easy Rules

1. Color prints or slides. Only one entry per category.
2. Photo must be taken on an FGCSA member's course. Photo must be taken by an FGCSA member or a member of his staff.
3. Attach a label to the back of the print or slide which identifies the category, course and photographer. **DO NOT WRITE DIRECTLY ON THE BACK OF THE PRINT.** Each photo shall be attached to a sheet of 8.5 x 11 lined paper. Line up the photo with the vertical and horizontal lines to square the photo on the page. Attach the print to the paper using a loop of masking tape on the back of the photo. Slides must be easily removable for viewing.
4. A caption identifying the category, course and photographer should be typed or printed on the sheet of paper below the print or slide.
5. Judging will be done by a panel of FGCSA members not participating in the contest.
6. Mail entries in a bend proof package to: Joel D. Jackson, 6780 Tamarind Circle, Orlando 32819. No entries accepted postmarked after August 15, 1997.

# Call For Articles

This is a call for articles for the 1997 Fall issue of the Florida Green.  
 Contact Joel D. Jackson, Editor for more information. Phone: 407-248-1971. Fax: 407-248-1971.  
 E-mail: FLGrn@aol.com

## HANDS ON TOPICS:

Renovations and Rebuilding. Submission Deadline: August 15, 1997. Superintendents are invited to submit articles relating to renovation and rebuilding projects. Topics may include: the decision-making process, planning the project, construction techniques, problems and solutions, in-house vs. outside contractors, impacts to the maintenance and members. Slides and photographs encouraged.

## SUPERINTENDENT'S JOURNAL

Personal observations or experiences related to any phase of the turf management profession. Slides and photographs encouraged.

## HEADS UP:

Examples: facilities, personnel, computers, training, etc. Slides and photographs encouraged.

## OPINION:

Exactly what it means! Articles voicing a personal point of view on any topic concerning Florida superintendents. Slides and photographs encouraged.

## RESEARCH:

A section reserved primarily for university and technical authors to report on research results within the turf industry. Slides and photographs encouraged.

## RUB OF THE GREEN:

Articles and anecdotes with a humor-

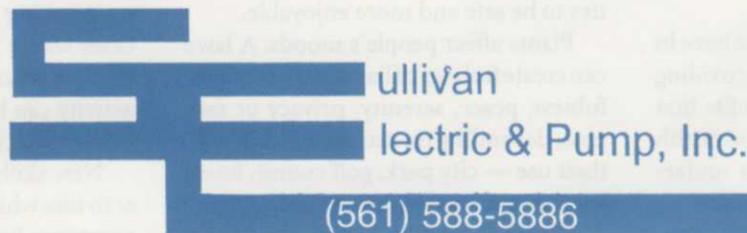
ous twist. Slides and photographs encouraged.

## TURFGRASS TRIVIA:

Facts and Tips that promote the benefits of turfgrass and golf courses. Slides and photographs encouraged.

## STEWARDSHIP:

Superintendents are invited to submit ideas and articles about environmental issues and initiatives at their courses. Slides and photographs encouraged. Contact Shelly Foy, Stewardship Coordinator for more information. Phone: 561-2620. Fax: 561-546-4653. E-mail: 102677.257@compuserve.com



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# Turf Trivia

## Health Benefits From Lawns

"Today almost everyone living in the urbanized centers of the western world feels intuitively a lack of something in life. This is due to the creation of an artificial environment from which nature has been excluded to the greatest possible extent" [Hossein 1968].

Americans have become more health conscious in the 1980s even as urban living abuses to physical and mental health seem to increase daily. Problems have become more complex and more difficult to cope with.

The media regularly features headlines about health hazards, over which individuals have little control. Concerns about water, food and air pollution have mounted to near panic levels at times from the feeling that disaster is about to strike.

It is important to see what we have in nature that is working for us, providing health and environmental benefits that are often overlooked. Survival and health of humankind are based on an understanding of nature and her processes.

Professor Patrick Horsbrough, professor of architecture at the University of Notre Dame, considers the proximity of plants to people as a psychological imperative [Horsbrough 1972].

Seeking the benefits nature provides is necessary for our own well-being.

Keeping a lawn free of insect and disease damage provides a dense turfgrass cover which can yield many health benefits. Use of the new cultivars gives vigor to the turf. When needed, the careful use of pesticides will help to give a thick turfgrass cover which not only will be more beautiful but will help to cut back on noise, modify the temperature, reduce glare and help control allergens, which are some of the environmental stressors which add to daily living discomfort. Plants are not a cure-all to ten-

sions and personal problems, but "involvement with plants can help you cope" [McDonald 1976].

Roadside rest stops, parks, cemeteries and home lawns are all conducive to good health because they provide settings that calm us, create a sense of well-being and help to reduce stress. Over 4000 members of the American Horticulture Society were surveyed as to the benefits of gardening.

Over 60 percent stated the most important satisfaction as "peacefulness and tranquillity." Taking care of a lawn, like other gardening activities, "is a process which includes all the thought, actions and responses which occur from the time a gardening activity is first contemplated, through the planting and growth of seeds, to the enjoyment of the mature plant" [Lewis 1978].

In addition, lawn tending provides the best in walking, bending and lifting exercise that help to promote good health. Out-of-doors gardening is more enjoyable to many than physical fitness workouts indoors. The soft, resilient cushioning attributes of turf allow outside activities to be safe and more enjoyable.

Plants affect people's moods. A lawn can create feelings of happiness, thoughtfulness, peace, serenity, privacy or sadness, depending on our association with their use — city park, golf course, home lawn or memorial park.

Where vegetation grows, child mortality, suicide and energy consumption are less than in places where there are no plants [Schery 1976].

Watching grass grow and respond to the seasons may be for city people a last link to the solace and understanding our vanishing wilderness once gave.

The therapeutic value of gardening has been recognized since ancient Greece. Hippocrates' famous work on *Airs, Waters and Place* recognized "that man's life, in sickness and in health, is bound up

with the forces of nature..." [McHarg 1971].

In the 18th century, mental hospitals in Spain prescribed gardening as therapy [McGrath 1987].

Today Horticultural Therapy has become an important professional specialty in the rehabilitation of the ill, the elderly, the chemically dependent, the handicapped, the incarcerated and school dropouts. "Gardening as a normal activity is used as a tool to achieve treatment goals" [Fearing 1978].

There is a growing body of evidence that personal health is linked with the person's beliefs, inner-space or psychological landscape [Lewis 1978].

A person who takes pride in helping plants to grow, and in nursing plants back to health after they have declined, starts to regain belief in themselves, establishing a level of pride, confidence and self-worth that can help in the healing process.

Those who work on lawns and in nurseries and greenhouses show a high degree of respect for these areas and gain a feeling of accomplishment.

Working with plants has helped in cases where people have been hospitalized for severe depression so this type of activity can be of use in combating normal everyday blues [McDonald 1976].

New skills are learned through these activities which build enthusiasm for life, overcome boredom and ease the mind. The excitement generated by watching and helping plants grow can make patients feel that they have overcome their disability.

A person who has been ill often loses the power to focus on tasks at hand. When a person focuses on the tasks associated with growing plants, their power of concentration is enhanced. This important quality can be transferred to other tasks and increase the individual's productivity [McGrath 1987].

***It is important to see what we have in nature that is working for us, providing health and environmental benefits that are often overlooked.***

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*Still*

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It has been noted that the recovery rate among hospitalized patient when their rooms viewed landscaped areas is often quicker than among patients who have non-landscaped views [Weyerhaeuser 1986].

The restorative qualities of turf and other plants provide a healing experience for people that is real [Stainbrook 1973].

Plants are non-threatening as they respond to care by everyone; they have natural inner rhythms which can teach us lessons about our own lives. In patients who are overcome with a feeling of failure, plants offer paths to success [Autry 1986].

Heightened socialization is noted among nursing home patients who are exposed to plants. Evidence is strong that involvement in lawn care and other gardening activities not only benefits the individual gardener but that it serves to

connect people in a positive way.

Neighborliness increases in places where residents become involved in gardening. A new spirit rises which can impact the community and bring people together [Lewis 1978].

When you take care of lawns and gardens, you also take care of yourself. Plants are a creative life force which can offer many benefits to those who are strong and well, as well as to those who need medical care. We cannot exist on this earth without plant life. As we learn more about plants, we find hope for the future and reassurance in today [McDonald 1976].

"Grasses and people get on truly good together" [Wilson 1961].

*Editors Note: This article concludes the Turfgrass Trivia series.*

## RUB OF THE GREEN

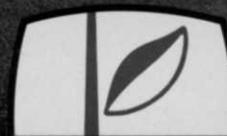
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What would you think if Congress passed a law making it illegal to have a barbecue in your back yard or to have a fireplace or to drive your car to work.

Congress won't pass such laws — but those things may be outlawed anyway.

How so? Well, it's an interesting lesson in how liberty is taken away through the back door.

All Congress has done is to pass a Clean Air Act. All the law states is that the Environmental Protection Agency can set standards. We are all in favor of clean air, so congressmen can say they're just being good guys.

But the problem is this: If the EPA sets standards, then it must enforce them. And if, as it appears, it sets ridiculous standards not based on sound science, then it may well have to outlaw outdoor barbecues and fireplaces as well as make car-pooling or the use of public transportation mandatory to achieve its standards. The standards almost surely will put a lot of small businesses out of business, not to mention adding an easy 10 percent to everybody's power bills.

When the Endangered Species Act was passed, I thought, well, that's OK. It just means that you can't shoot eagles or other animals that are in danger of extinction. I'm in favor of that.

What I didn't know, of course, was that the government would declare oddball insects and rodents, worms and minnows and obscure plants nobody but a botanist could identify as endangered. I didn't know that the government then would state that, to preserve the species, it must preserve habitat no matter how much economic destruction and injustice it inflicts on people.

The habitat approach is a big difference that has resulted in wholesale injustices and, in effect, the taking of private property without compensation.

If you owned 100 acres of woodland, you

probably wouldn't mind if a woodpecker lived in one of your trees. But then the feds come along and say that woodpecker needs your 100 acres of timber to get three square meals a day, so you can't use the 100 acres in any way that would disturb the woodpecker. You can, of course, continue to pay taxes on it.

Nearly all evil is done in the name of doing good. It's no exaggeration to say that the greatest threats to the liberty of the American people today are environmental laws and the drug war.

Congress needs to revise seriously the Clean Air Act, the Clean Water Act and the Endangered Species Act. Unfortunately, the environmental extremist industry, heavily financed by federal grants, tax-exempt foundations and big corporations, screams so loudly at any thought of amending these laws that Congress, which is infamous for its cowardice, is scared to touch them.

But unless you want to live an environmental version of George Orwell's Big Brother dictatorship, you'd better find a way to inject a little backbone and common sense into Congress.

What's missing from environmental legislation and enforcement is what is known as the "reasonable person" rule. Environmentalism has become the new McCarthyism. Anyone who dares to suggest some reasonable amendment is branded an enemy of nature.

That doesn't sit too well with me, because I hate an extremist the way Redd Foxx hated midgets. I hope it doesn't sit too well with you. We can, given the limits of population and economic necessity, do a reasonable job of preserving the environment without destroying the economy, trampling on the most basic human rights and destroying what's left of our free society. But to do that, we must wrest the environmental laws and agencies away from the Green Jacobins.

What good are clean air and clean water if the only people left to enjoy them are an impoverished mass of slaves and a few rich masters? Smoke pollutes air, but fanaticism and bad laws destroy freedom.

## Silly laws enter through front door while liberty slips out back

### Guest Column

CHARLEY REESE  
*The Orlando Sentinel*

#### Editor's note

This column in the *Orlando Sentinel* is filled with common sense and is reason enough for everyone to get involved enough to know what is going on in the halls of local, state and national government.

It is why we help fund Legislative Consultant Mike

*Continued on page 108*

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Goldie to keep an eye out for us in Tallahassee. It is why you need to be an informed member of the electorate, and it is why you need to send a letter to your representative when proposed legislation isn't backed up by facts.

This column also says to me that laws with compliance, regulatory and penalty language should be written completely before they are passed in concept. That way the "well intentioned" legislators can be held accountable for the full impact of the law, and not leave the voters to the mercy of regulation-writing, nameless bureaucrats

# Letters..

...to the Editor

Joel,

*I have been reading The Florida Green magazine for the last nine months, over three issues. The articles, pictures and editorial commentary by yourself and others are educational, very informative and amusing. I was also very gratified The Florida Green receives the continued and much-deserved accolades as noted by GCSSA. Isn't it marvelous to be the best in your field?*

*Again, kudos to all who work with you to help distribute such an outstanding publication for our industry.*

*Thanks again for publishing the article written on high technology lubrications.*

*Keith VanMeter, The Protector Mfg. Co.*

*I just can't say enough about how impressed I am with the people who organize and support the Envirotron Classic. The tournament is wonderful indication of the*

*great people we have working in Florida's turfglass industry. Without industry support we won't grow.*

*Researchers utilizing the Envirotron are eternally grateful to the Seven Rivers Golf Course Superintendent's Chapter. They had the vision to begin this hugely successful tournament that provides money to purchase equipment for research use today and years to come.*

*As for supporters, Ron Kitchen Sr. and Terry LaGree of Barbaron, Inc. have been two of the finest people I have ever had the pleasure to worked with. I am grateful for their help in building the Envirogreen and their continued support for the Envirotron through their generous donation to the Envirotron Classic.*

*Attending the Envirotron Classic to visit with superintendents and other individuals in the turf industry, while playing on one of Florida's most beautiful golf courses is truly a highlight of my year.*

*Dr. Grady Miller  
Assistant Professor of Turfglass Science  
University of Florida*



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# What I Did Last Summer..

by John L. Mower

Thanks to my very loud , I got up. It was a sunny morning and I had planned to spend some time on the lake catching , but I had a major problem in the yard. The  trees were growing nicely, but the bermudagrass was not. It looked as if we had been watering with a very small ! Summer was slipping () away and the stress was mounting. Obviously, it was a growing problem so I began to  for some in-depth clues.

Then, I had a very  idea. I hurried right to the  and called



, the bermudagrass experts. Their great selection of CERTIFIED bermudagrasses gave me exactly what I needed. They told me about

**Sultan**

brand bermudagrass and that I could have a denser, darker and finer textured . Soon, everything was just . I even had time to hit the lake and catch some . For a great summer, you should call SEEDS WEST, too.

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It is unfortunate that deadlines often occur just before important events transpire. I wish that I could be announcing here the name of the University of Florida's new turf coordinator, but the interviews are taking place several days from now.

Of course, it will all be past tense by the time you are actually reading this. Four outstanding candidates have applied for the position and I am confident we will soon have the leader we have been waiting for to take the University of Florida turf program to the next level.

I've never before been as excited and optimistic about the future of our industry as I am right now. We have more

superintendents, suppliers, and university personnel making significant contributions for the betterment of our industry than we have ever had in the past. I'd like to highlight a few of these with the remainder of this column.

The first "Attaboy" goes to Darren Davis of the Olde Florida Club for the outstanding video he has created showcasing golf courses' positive environmental contributions and the superintendents' role in it.

Those of us attending the FGCSA Board meeting in Naples were treated to a preview of the video, and it is simply first rate! Some of the wildlife footage is incredible! The uses of this video are limitless, and every superintendent will have a copy. Great job, Darren!

Darren is also building a test green at his golf course to compare four putting green quality bermudagrasses, which will generate information that will help all of us.

One of the grasses that Darren will be testing is 'Floradwarf', developed by Dr. Al Dudeck at the University of Florida. Dr. Dudeck recently published an excellent technical bulletin called "Floradwarf Bermudagrass" which he is sending out to all members of FGCSA.

This is the kind of information, along with field testing, that our industry needs to be able to make informed choices. I've always held the

belief that there is not, and never will be, one "supergrass" to meet everyone's needs in the Sunbelt.

A public course in North Florida that overseeds and plays 100,000 rounds a year may be better served by a different grass than a private course in South Florida that never overseeds and plays 20,000 rounds a year.

Field trials will help individual superintendents make better decisions.

How about the last few issues of the "Florida Turf Digest"? Through the efforts of Scott Wahlin, Irv Betrock, John Cisar, and others, the publication has evolved into an extremely useful and attractive magazine.

It is particularly gratifying to me because I've always felt that the FTGA magazine should focus on the turfgrass research that the FTGA funds, and that it should be written in easy-to-understand style and language so anyone can read and comprehend the scope and results of research projects.

Want to know about porous ceramics for greens construction? Or the usefulness of the choker layer in USGA spec greens? Or bacteria that can control Sting nematodes? Check out the "Turf Digest." There really is more turf research going on at the University of Florida than any of us knew about, and publishing it in the FTGA magazine is the best way to inform the industry.

What's that? You're not a member of FTGA and don't get this publication? Borrow a copy from one of your neighbors, then call me and tell me why you still don't think it benefits you to belong to the Florida Turfgrass Association.

Whether you acknowledge it or not, if you are working in the turf industry in Florida, you are getting benefits from the activities of the Florida Turfgrass Association. Why can't you join and add your financial and political support to an organization that works for your best interests?

Great things are happening due to dedicated individuals, but we cannot move forward without a larger membership base! While on the subject of FTGA, I'd like to publicly acknowledge the fantastic job that Roy Bates has been doing as this year's President of FTGA. Two "Attaboys" are due Roy!

Right in the middle of writing this article, I

## Heading in the Right Direction

### Mark My Words



Mark Jarrell, CGCS Assistant Editor

just realized that trying to list all the great things individuals and chapters were doing for our industry and our communities would be impossible in the space allotted my column.

From the Seven Rivers' Envirotron Classic to the Treasure Coast's Blue Pearl Tournament, superintendents and their suppliers are giving back to their communities and the industry that sustains them.

The University of Florida is committing more resources to the turf program. We have reached out to other state golf and green industry organizations to try to forge more effective and cooperative alliances.

I feel very good about the direction we are heading and am proud to be a Florida superintendent.



Darren Davis previews the almost completed video for the FGCSA Board at the spring meeting in Naples. Photo by Joel Jackson.

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## For Larry

June 9, 1997. Today, we lost another one of the good guys. Larry Kamphaus was one of those rock-solid dependable guys who didn't take the easy way. He was one of those traditional gentleman who

lived his life and conducted his business with honor and ethics.

We lost a big teddy bear of a man who loved his family and his work. We lost a guy with an insatiable curiosity who loved to tinker with

everything from bulldozers to computers and who could take something apart and then put it back together and make it work like a musician that plays a song by ear.

He was humbly proud of his achievements. The only give away would be his twinkling eyes and friendly smile when he had a victory. He hid his disappointments well and played the cards that he was dealt and I like to think he won more hands than he lost. He was fiercely loyal to his employer and spent 26 years giving his full share of effort for his day's pay. He could be stubborn when he felt he was right, but he was a team player when the chips were down and the play was called.

He helped me out on more occasions than I can count when he would come over and tinker with my pump or controller or clay valve and teach me how to trouble shoot some of those mechanical and electrical problems that always mystified me. He helped me through some rough spots with words of encouragement. He helped me gain perspective and focus and priority in my

life. And while the job was always important, I learned that it wasn't always the most important thing in life.

The only way I could rile Larry was to ask him what brand of hair coloring he used. While we are both the same age, my locks turned steadily silver over the 20 years I knew him, and his stayed youthfully brown. It was a trade-off. He was taller so I opted for looking distinguished.

He loved to play golf even though his swing betrayed him on more than one occasion and his handicap kept him out of the A Flight. He worked at his game off and on, but like life he took the good with the bad. He could be a tiger in a scramble format often pulling off shots that were legendary by any standard.

Larry never stopped learning about his profession. He never stopped trying new ideas and methods. I never saw him give in to the dark side of things at least not in my presence. He always remained an optimistic person with a positive outlook on life. He was at various times my boss, my mentor and my friend.

Larry Kamphaus, CGCS, superintendent of Disney's Magnolia Golf Course died today of a massive heart attack at 3:30 am. I will miss him and the only comfort that I can find is in knowing that I am sharing that loss with a whole lot of people that he touched in his lifetime.

Keeping the "green side up" is what we get paid money for. Keeping the "sunny side up" is what earns love, friendship and respect. You can do both and make life's journey a trip everyone will remember fondly. Today, I remember Larry!

### Green Side Up



Joel D. Jackson, CGCS  
Editor

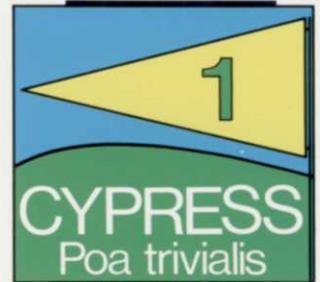
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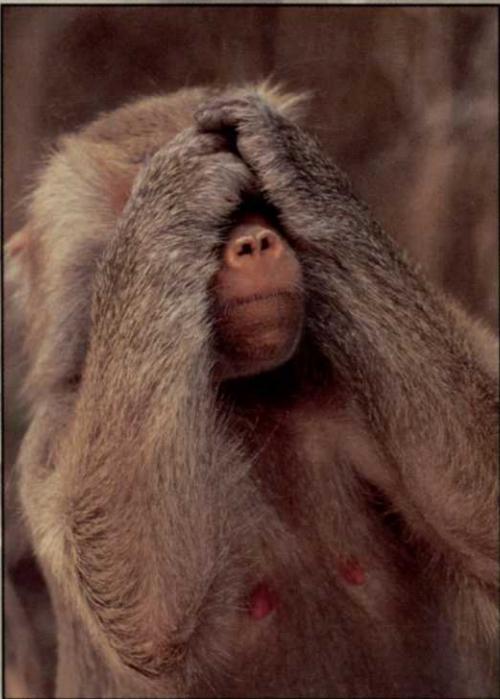


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