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Summer 1996



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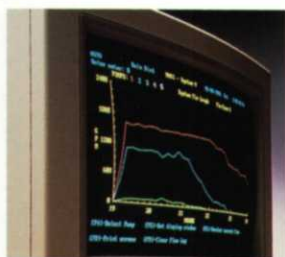


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By the time you read this article, my term as president of the Florida Golf Course Superintendents Association will have come to an end. I cannot begin to tell you how proud I am to have served this past year as the leader of

what is truly a great organization. The correspondence throughout my term with other people in and out of industry sector proves that there is a great deal of respect for the FGCSA, and these relationships must continue to grow and nurture. I leave office knowing that Dale Kuehner, CGCS, will continue to enhance these relationships and do a fine job as President for this upcoming year. Dale, I wish you great success during your term.

There are a couple of thoughts that I would like to leave with all of you. First, the relationship between the FGCSA and the FTGA needs to be strengthened. A friendship exists between the two associations, and some common interests and strategies are in place, but overall our alliance can greatly improve. Too many times independent actions are being discussed and finalized without the other organization being actively involved in the decision process. Joint committee work will solve this problem. It has been discussed before between the two groups, and now it is time to implement this idea.

Also, there are currently some superintendents out there questioning the FTGA on actions the association has taken recently. I want to ask those superintendents who withhold their support for the FTGA if they really know and understand what happened in the past, why changes were made within their association, and what the mission of the FTGA is at this time. If you do not know these answers, ask an FTGA board member and stop criticizing their association. The "hearsay" stories on the street need to stop. Join an FTGA committee and air a voice instead of spreading ill-mannered comments that have no merit.

Along these same lines, our association needs more interaction on FGCSA committees. This past year participation in committee work was disappointing. As much talent as there is among the superintendents in this state, our committee work should net a lot of positive results. Decisions are to be made in committee with recommendations from the committee coming to the board for board approval. This is not happening, folks! The FGCSA needs more participation from its members.

The issues that the FGCSA is dealing with today sets the tone for our future as superintendents as well as others entering the field. These issues, such as water conservation, water quality, environmental regulations, product analysis, cultural practices, education, turf studies, scholastic awards and public relations are just a few of the many issues that the FGCSA is actively involved in. And there are more — many more — issues that demand our attention. To continue to be the leaders that we are, it is imperative that the FGCSA find a way to address these concerns. Proactive, not reactive, is the manner in which our association needs to operate. Increased participation from our membership will ensure that the FGCSA remains proactive. I would hope everyone agrees.

In closing, I will say one thing. What a year! Thanks go to everyone who supported me through a year that had some bizarre twists to it at times. I am a firm believer that everything happens for a reason, and this belief was definitely applied to a few situations that occurred during the year. One of those situations led to my new position with International Golf Management. The responsibilities that I have with IGM allow me to remain a Certified Golf Course Superintendent. They will also allow me to do something else that I will truly love doing, and that is assisting other superintendents in their professional development. My father was an educator for many years, and I guess a part of me has always wanted to be one, too. What a great world in which we live!

*What a great world we live in!*

**PRESIDENT'S MESSAGE**



Greg Plotner, CGCS  
President  
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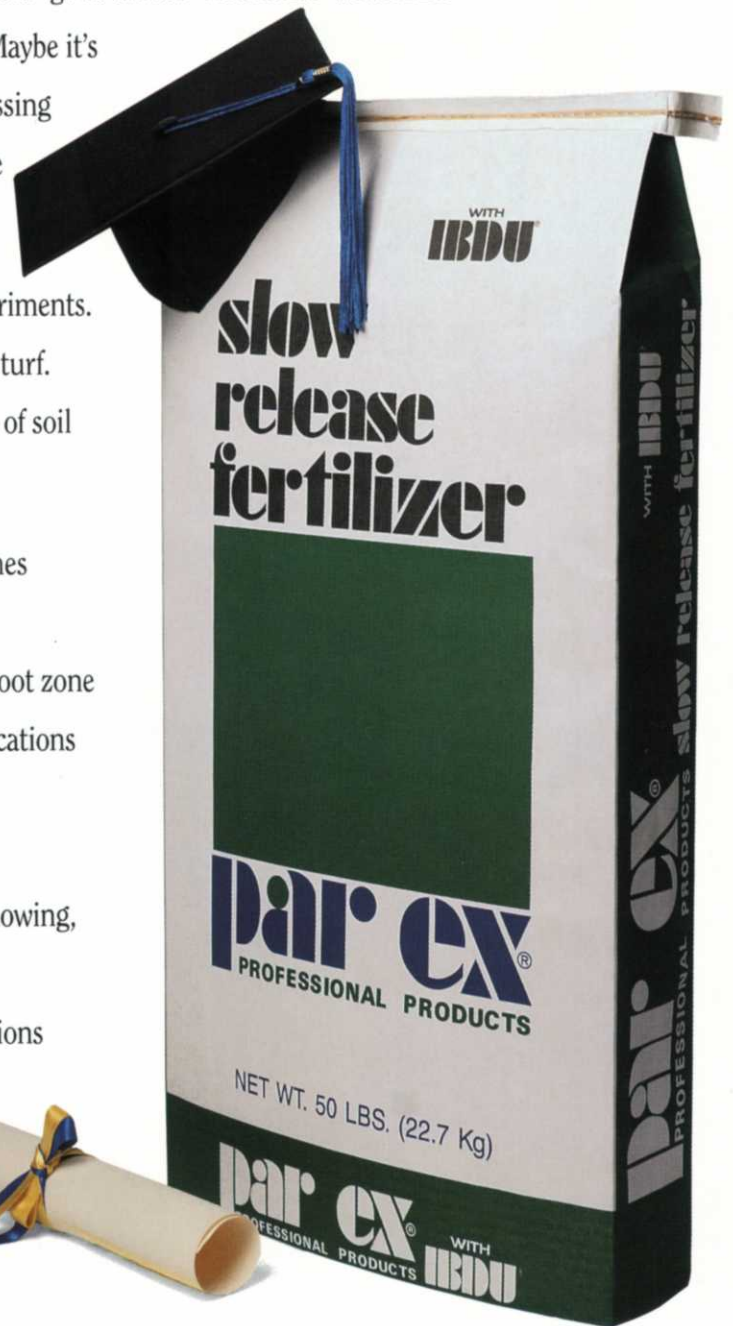
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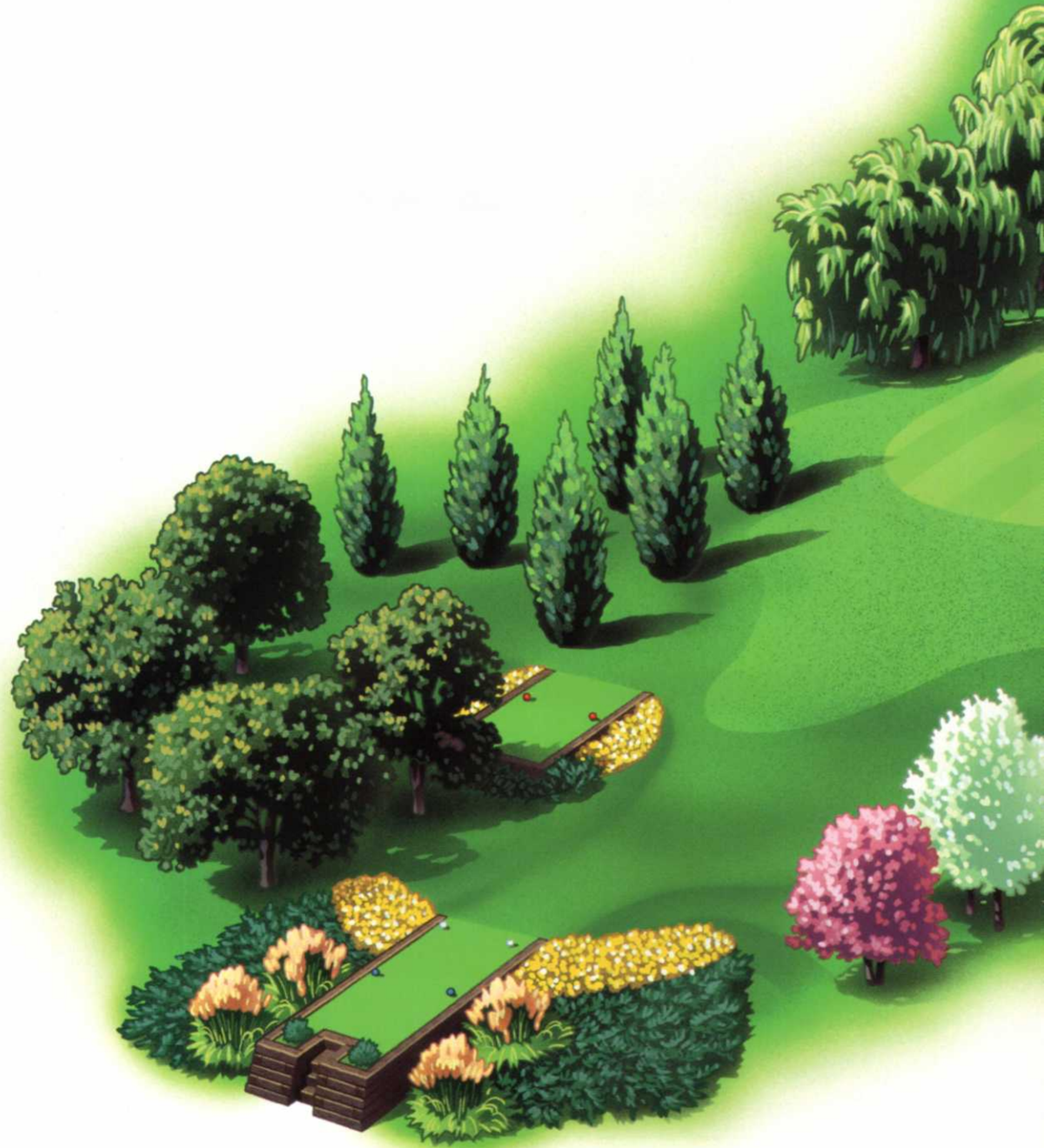
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Rick Wise, CGCS wears many hats and almost as many logos (PGA of America, PGA Club at the Reserve and GCSAA) for the PGA of America golf complex in St. Lucie, Florida. Photo by Joel Jackson.

## A funny thing happened on the way to The Poa



From left, Joel Jackson and Kevin Downing representing The Florida Green join Mike Graham and George Cogsdell from the Fort Pierce newspaper at the media day for the opening of the PGA Reserve's South Course. Photo courtesy of the PGA of America.

BY JOEL D. JACKSON, CGCS

Two weeks before the Poa Annuu Classic, I received a call from Sherry Major, Public Relations Manager for the PGA of America. A copy of the latest Florida Green had just crossed her desk, and she called to see if *The Florida Green* would like to send a couple of folks to participate in the media day being held for the grand opening of the South Course of the new PGA Club at the Reserve. I had read an article in *Golf Course News* about this new venture and how the superintendent, Rick Wise, CGCS wore three logos on his golf shirt (GCSAA, PGA of America and The PGA Club) signifying the unity of purpose of this new operation. I was very interested in talking to him and seeing the new course. A few phone calls later and I had drafted Kevin Downing, CGCS, from nearby Willoughby GC in Stuart as my playing partner. Since the event was just one day ahead of my planned departure for the Poa, I took an extra day's leave and headed south.

I found that sleepy, laid back St. Lucie, Florida has just been put on the golf map for good! The PGA of America has moved into town, purchased the St. Lucie West course and has just developed a 36 hole

complex at the Reserve based on the Fazio Design Group's imagination. Tom, Jan Beljan and Steve Masiak have dreamed up a Carolina/Florida one-two punch that will test your skill and please your eye. The rolling, piney Carolina-look North Course with undulating greens stresses the short game while the coastal, marshy, wetland South Course requires more attention to driving and approach strategies.

The goal of PGA Properties, Inc. is to develop a chain of courses across the country that will provide public access golf to top notch golf courses at affordable prices. The PGA Club's rates for this year were \$49 during the winter and \$25 for the summer with even more specials for late afternoon and junior golfers. This first venture has been challenging and rewarding for all concerned, and especially from our perspective for Rick Wise, CGCS Turf Operations Manager.

Wise has been busy sprucing up the recently acquired St. Lucie West course just one mile east of the new PGA Club and overseeing construction and grow-in of the new 36 hole complex. Wise was assisted in this monumental task by: Su-

perintendents, Barry Lezark at The PGA Club and Mike Vannoy at St. Lucie West; Assistant Superintendent Clay Marshall at The PGA Club; Shop Manager Brian Layle, Irrigation Tech Stephan Deek, IPM Tech Mike Adams and Administrative Assistant Jackie Harris.

Wise said, "People have been looking at me this past year and a half, shaking their heads and asking if I was crazy! We started construction on the North Course in late '94 and got shutdown by bad weather in January 1995. We finally started planting in June of '95 and we replanted and we replanted while trying to start construction on the South Course. You know what kind of summer we had! We finished planting the South Course in November of '95 and there was much discussion of the pro's and con's about trying to oversee so we could open this winter. Realizing we would likely have to deal with a rough first year grow-in transition and keep explaining why the condition of the South Course was so far behind the North, the PGA agreed it was better to complete the bermuda grow-in and postpone opening till now. They bit the bullet and it has paid off in a much



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better stand of turf than we would have had.”

I asked Wise about the three logos on his shirt and their implication. “I can’t say enough about the communications and teamwork I have received from the members of the PGA,” Wise said. “They have listened to and respected my input and have kept me in the loop at all times. Marty Kavanaugh, Senior Director of PGA Golf Properties, and Bill Cioffoletti, Head Golf Professional have been just super to work with and it’s not unusual to find Jim Awtrey, CEO of the PGA of America, strolling into my office at 7:00 AM to see how things are going. It’s been a great experience. Jim is really proud of our maintenance facility and often shows it off to visitors before they see the clubhouse. I was able to work closely with the architect and make some changes. We have a built in recycling system. We don’t release any clippings or rinsate into the environment. In fact, the whole project received an environmental awareness award from Links magazine. While all this has been going on, I have also had the new courses in the Audubon Signature program and St. Lucie West in the ACSP Certification program.”

As for the media day itself, Kevin and I found ourselves not on the print media team, The Scribes, but rather on the electronic media team, The Mics, something to do with balancing the numbers on the teams. At any rate thanks to Kevin’s 76, the Mics drubbed the Scribes -69 to -31. As for me, well my game still needs lots of work, but I enjoyed the day and was pleased that *The Florida Green* had been invited to participate. If you get a chance, swing by and take a look. You will enjoy the whole facility and the experience.

## 1996 Poa Annua Classic offers respite in transition

Spring means transition. Spring means renovation. Spring means The Poa Annua Classic and The Naples Beach Club. Like the swallows returning annually to Capistrano, superintendents, suppliers and their wives and families return to Naples for the rites of spring passage and the beginning of the intense hot Florida growing season.

This Poa Annua was a chance to catch our breath and swap horror stories about the worst Florida winter in the 1990’s. It was an opportunity at the Spring Board Meeting for all the FGCSA Chapters to fine tune their understanding of the impending GCSAA affiliation process. It was a time to earn continuing education credits at the Friday Seminar. It was an excuse to limber up the rusty golf swing and raise

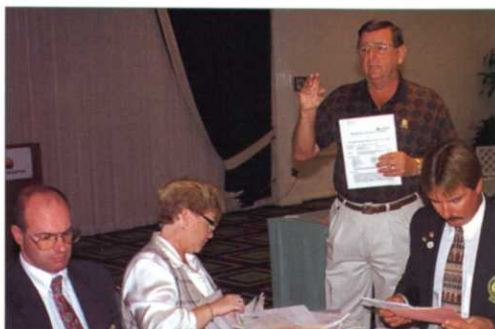


*Architect Ron Forse answers a question during the break in The History of Golf Course Architecture seminar held at the Poa Annua Classic. Photo by Joel Jackson.*

*All ten FGCSA Chapters were represented at the Spring board meeting to discuss GCSAA affiliation, IFAS organization, research funding, legislative initiatives, public relations, education and next year’s budget. Photo by Joel Jackson.*



*Charlie Campbell of Dow Elanco made a brief presentation to the FGCSA Board to announce a new rebate program that will benefit turf research. Photo by Joel Jackson.*





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*(left to right) Mark Hopkins with the Low Gross score of 67 led his Ridge Chapter teammates, Steve Ciardullo, Ray Cuzzone and Dan Smokestad to the Poa Annua Classic team championship. Mark automatically qualifies for the Florida Team to compete in the 1997 GCSAA Golf Championships in Las Vegas. Ridge Chapter President Alan Puckett(center) holds the traveling Poa trophy. Photo by Joel Jackson.*



education and research money in the Poa Annua Classic and G. C. Horn Memorial Golf Tournaments on Saturday and Sunday. It was a time to relax with a libation and a sea breeze and watch the sun set in the Gulf without having to worry about irrigation schedules and equipment problems. It was good food, good people and good times once again!

Thanks are in order for the friendly folks at The Naples Beach Club who always make our stay a pleasure, and to Dick Naccarato and his staff for preparing the golf course to our liking. A big round of applause for Dale Walters and the Everglades Chapter for being gracious hosts once again. And a special thanks to Bruce Williams for taking time out from his Bob O' Link course in Chicago during a busy spring emerging from a tough winter to come bringing thanks from the GCSAA for Florida's contributions on the national level.

When the last putt drops and the last handshake pulls apart and the key turns in the door for the last time, we head home having celebrated another Poa Annua together in pursuit of excellence in all that we do! Take care! See you next year!

*(left to right) Marie Roberts, FGCSA Association Manager, signs in certified superintendents: Dan Jones, Larry Kamphaus, Steve Pearson and Mike Bailey in search of continuing education credits. Photo by Joel Jackson.*



*Dale Walters, CGCS, President of the host Everglades Chapter, welcomes everyone to another memorable Poa Annua Classic weekend. Photo by Joel Jackson.*



*Special guest, GCSAA President Bruce Williams, CGCS participated in the Poa Annua banquet festivities and in the Dr. G. C. Horn Memorial Fund turf research tournament. Photo by Joel Jackson.*







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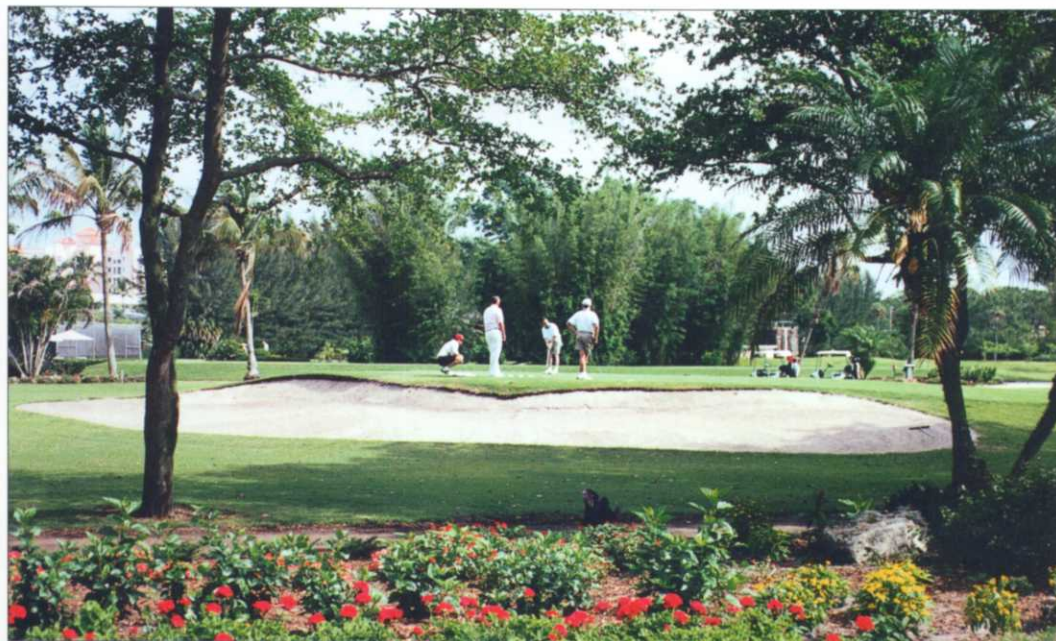
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that we  
do!”*

*Yes boss, we do play golf at the Poa! Proceeds are used for education and turf research funding.  
(Ninth green at the Naples Beach Club) Photo by Joel Jackson.*



*Out-of-towners soon became “sundowners” at the Naples Beach Club. Photo by Joel Jackson.*



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# USGA Green Section regional conferences draw more than 250

**F**or over ten years, the USGA has been hosting one day educational conferences in Florida. This year, two conferences were held, one in Orlando on April 15th, and the other in Palm Beach Gardens on the April 18th. Over 250 golf course superintendents, club officials, golf professionals and industry representatives attended the conferences.

The morning session started off with Chris Hartwiger, USGA Green Section Agronomist discussing the Ups and Downs of Rolling Greens. Tony Zirpoli, USGA Regional Affairs Director, gave a talk in Orlando on the Amateur Status, while Mike Fallon with the National Golf Foundation, gave a talk in Palm Beach Gardens on Industry Trends in the Growing Game of Golf. Next, Dr. John Cisar with the University of Florida gave a talk on More of What We Have Learned About Pesticide Leaching. Darren Davis gave a very good update on the ACSP for Schools and encouraged other superintendents to get involved. Dr. Monica Elliott discussed Cultural Control of Turfgrass Diseases, and William Amick, Golf Course Architect wound up the morning session with a discussion on How to Properly Set

*Darren Davis gave a very good update on the ACSP for Schools and encouraged other superintendents to get involved.*



Roger Harvie (right), Manager of USGA Regional Affairs, checks in USGA Seminar attendees in Orlando. Photo by Joel Jackson.

Up a Remodeling Improvement Program for Golf Courses.

After lunch, Dr. Kris Thoenke from Naples, led a discussion on Wildlife's Role in the Future of Golf. Steve Beeman, President of EcoShores, Inc., talked about

Aquascaping Your Golf Course, and the ever popular Whit Collins with the West Coast Employers Association, finished the day with What's Shaking in Labor Relations.

*Shelly Foy*



Olde Florida GC Superintendent Darren Davis makes his presentation at the USGA Seminar in Orlando. Photo by Joel Jackson.

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# Golf tournament raises \$45,000 for environmental research


The Seven Rivers Chapter hosted the fourth annual Envirotron Golf Classic on April 22, 1996 at World Woods Golf Resort and raised \$45,000 for the Envirotron Research Equipment Fund. The four year total for the event has now reached \$132,500. The Envirotron is a 3,100 square-foot, state-of-the-art research field laboratory, which opened in November 1993 on the University of Florida campus. Funding for this facility has been a joint effort of the Florida Turfgrass Association and the Florida Golf Course Superintendents Association.

Tournament organizer, Stuart Bozeman thanked the tournament sponsors for supporting the event and its associated research projects. Bozeman offered special recognition to World Woods owner, Mr. Yukihiisa Inoue and Director of Golf, Steve Hritsko for providing a host course since the inception of the event.

"The staff and ownership at World Woods are the primary reason that this tournament has been so successful," Bozeman said. "Mr. Inoue's generosity and support reflects the kind of positive attitude that our industry needs to move forward in the field of research."

Major sponsors included: \$10,000 - Chipco Choice Insect Control Systems; \$2,500 - The Crowfoot Open, Southern Golf Products, the Central Florida Chapter of the FGCSA, Terra/Asgrow FL/Bayer. United Horticulture Supply/Bayer/Pickseed, Golf Ventures/Lykes/Helena/Ransomes; \$1,000 - Bayer, NuCrane Machinery, Great Queens of America, AgrEvo USA Co., Zeneca Professional Products, Greg Norman Turf, Harrell's Fertilizer/Polygon, Ciba-Geigy, Wesco Turf, Barbaron Inc., Tresca and

Jacobsen, Dow Elanco, Vigoro Ind. Inc., Eco-Soil Systems; \$500 - E. R. Jahna Industries, Florida Design Communities, Plantation Resort, Kilpatrick Turf Equipment, Golf Agronomics Supply and Han-

dling, Central Florida Turf, Seminole/Marico fertilizer, Liquid Ag, Environmental Golf, Inc., Gold Kist Inc., Lesco, Micro-Flo, ISS Golf Course Services, Green Releaf. 

## GCSAA NOTES...


### *Help us stock our photo files!*

**PUBLICATIONS** — The publications and media relations/video services departments are looking for photos or slides of members on their courses. These pictures are often needed to accompany articles in *Newsline* and in *Golf Course Management* magazine, as well as to use in slide presentations.

If you have any pictures depicting you and/or your staff performing various duties on the golf course, we would appreciate your donating them for our stock photo files. Please be sure to label the individuals, the course and the action or event taking place.

Also, remember that GCSAA strives to represent its members in a professional manner. We prefer not to use photos of superintendents in jeans, T-shirts or shorts; or wearing hats indoors, or shirts or hats that prominently display a company's logo. Hats worn outside, with your course's logo or the GCSAA logo, are acceptable.

The most useful pictures show superintendents in various aspects of their jobs, such as personnel training, irrigation, aerification, environmental preservation, group tours, tree and ornamentals care, wildlife conservation, business and financial planning, soil testing, renovations and any other duties that depict the superintendent's profession.

Please send photo donations to Christina Slape, *Newsline* editor, GCSAA, 1421 Research Park Drive, Lawrence, KS 66049-3859. 



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*Tom Trammell, CGCS, Metrowest's Course Superintendent, stimps the 15th green as part of his crew works on the fairway and tee boxes.*

# Pot bunkers, storms and other challenges preparing for tournament play

BY CAROL BARFIELD

It was around midnight this past March when Tom Trammell, CGCS, knew for sure he had trouble on his hands.

The rain had been coming down in sheets for hours and now, as he rolled over in bed and checked the clock, it was showing no sign of letting up.

What the seasoned golf course superintendent knew for sure was this: His challenge to prepare MetroWest Golf Course for one of the club's largest and most attended events of the year had just

increased substantially as more than four inches of rain deluged the course in one night.

With the Celebrity Golf Association event just days away, the 86 bunkers that dot the course would not be pretty come dawn, to say the least.

"The rain? Yeah, it totaled some of our bunkers," Trammell said with a smile. "MetroWest has some wonderful hills on the course, but when the heavy rains ran off those hills into nearby bunkers, it

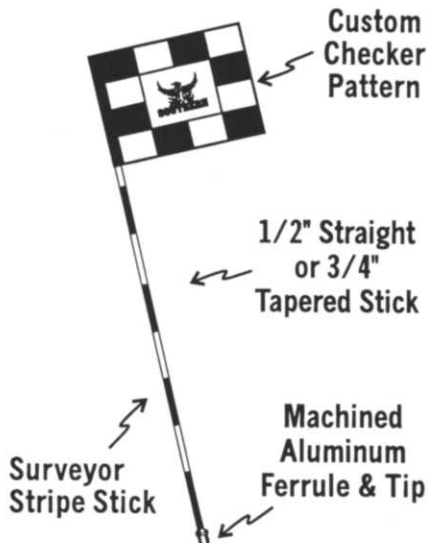
washed a few of them out. We had about 30 to 40 hours of extra work ahead of us to put it back into condition before our players and guests arrived. So we just got going. We rebuilt some faces and we had to resod bunkers lips," he explained.

Rebuilding parts of a golf course was not on Tom's list of things to do to prepare the course for a tour event, but he says that's just the point. "You have to stay on top of what you know is coming, because in this business there are just too

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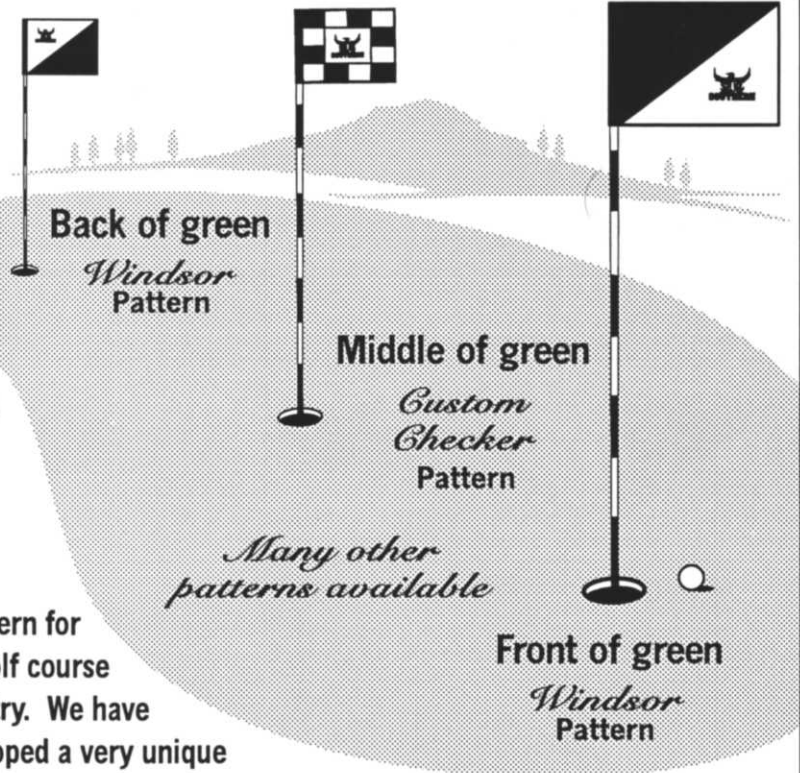


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many unknowns.”

Getting MetroWest’s 220 acres of Robert Trent Jones Sr.-designed course ready for the CGA event included putting up show fences and more than 12 miles of ropes, posting hole signage, erecting leader boards, and a host of other last minute necessities. The roping of the course may have been the most obvious change, but behind the scenes work on the greens, tees and fairways had been going on for some time.

Jim Karvellas, Commissioner of the CGA, said his staff had been meeting with Tom for more than a month, identifying course conditions that needed improvement and watching Tom coax and nurture Mother Nature along.

“We are always striving to keep our greens in top shape,” Trammell stated. “In this case, as we approached a transition period, we were working to keep the winter grass with us.”

Their special attention paid off, for when a host of celebrities, media and fans came together on the course March 21, the course’s eighteen varied splashes of emerald green were well appreciated.

“The players commented very positively on the greens,” explained Karvellas. “These are golfers *and* celebrities, so they have the opportunity to play the world’s finest courses. They openly said that MetroWest had some of the best winter greens they had seen all season.”

And just how fast were the greens to be cut for the CGA event? “The tournament organizers wanted them a bit faster than we normally keep them,” Tom said. While regular members and guests find the course greens running at 8 or higher, the MetroWest maintenance team was asked to have the greens stimping between 10.4 and 10.5.

With the day’s events beginning early each day, Tom was faced with the challenge of having the course prepared for play with first sun. MetroWest’s 50 acres of fairways posed a particular challenge, which the crew met with an unconventional solution. “Yes, we worked at night,” Tom recalled, laughing. How? “We had infrared sunglasses. . .” he attempts before a shy grin emerges. “With floodlights on the equipment, you can mow in

the middle of the night.”

The fairways, it turned out, were also well praised during the CGA event. Tom explained, “At MetroWest our fairways are seeded at a very high rate, then cut lower than three-eighths of an inch.”

The result on this one? Tournament players said they found MetroWest to have some of the truest fairways playing conditions they have ever seen.

Trammell admits that creating tournament playing conditions demands grueling hours and team commitment. It also takes a blend of scientific and creative problem-solving related to turf growth and maintenance. Yet the Florida native was all smiles as he recalled the event. “We loved it. It is a great motivator to have a challenge such as this. Our staff really came through,” Trammell said.

And what about Karvellas and his CGA event? “We’ve held our Central Florida tournament at MetroWest for two years now and our players love it here. We consider MetroWest our Central Florida home, and we’re looking forward to coming back,” he added.

Those words will be music to one course superintendent’s ears.

***Editor’s Note: Last year we did a series on the traditional LPGA, PGA and PGA Senior Tour sites. With the popular growth of the Celebrity Golf Association, it seemed only fitting to run this story submitted by freelance writer, Carol Barfield, to complete the picture. MetroWest was also one of the courses played in the GCSAA Golf Championships this past February. Congratulations, Tom!***

# Turf Trivia

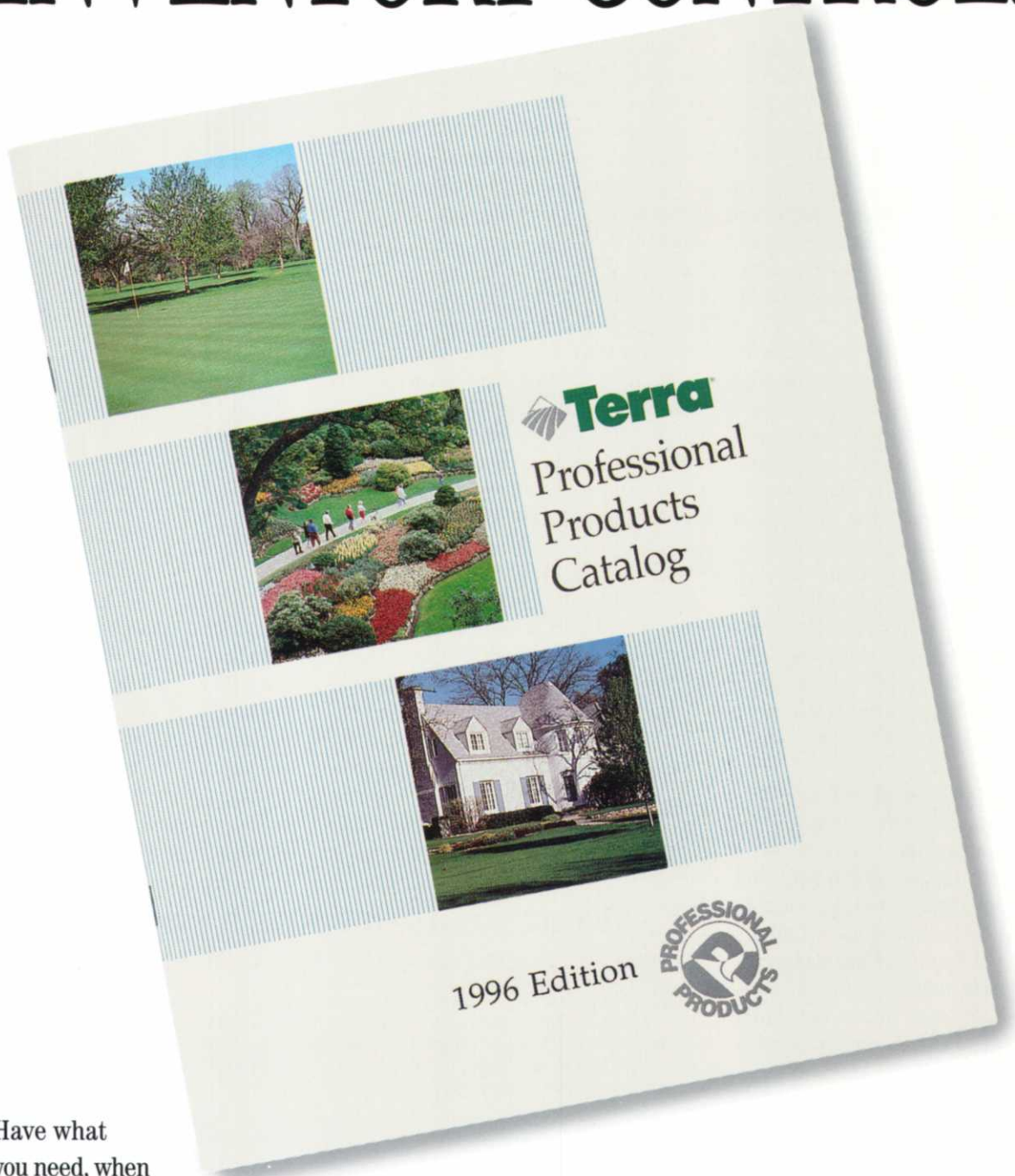
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When the temperature of the sidewalk or street is well over 100 F, the temperature at the surface of turfgrass areas will remain around 75 F. It has been estimated that on a block of eight average houses, front lawns have the cooling effect of about 70 tones of air conditioning (the average home-size central-air unit has a three- to four-ton capacity).

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# The purpose of this association shall be...

BY ROBERT KLITZ, CGCS

Article II, Section 1B of the South Florida Golf Course Superintendent's Association Bylaws states that, "The purpose of this Association shall be to improve the position of the Golf Course Superintendent by providing a cooperative effort to collect, disseminate, and preserve scientific and practical knowledge for the more efficient and economical maintenance of Golf Courses in South Florida."

On a cold and windy January day in Coral Springs this cooperative effort by South Florida superintendents was displayed at the new Tournament Player's Club at Heron Bay. Chuck Green, superintendent at the new Mark McCumber-designed layout, had invited some area superintendents out to view the new property and offer their comments and suggestions. The superintendents who visited were current SFGCSA President Dale Kuehner, CGCS, from Colony West; Bill McKee from Oak Tree CC; Steve Kuhn from High Ridge CC; Ed Miller from Williams Island CC; and myself, representing Deer Creek.

One of Chuck's biggest challenges during last summer's construction was the excessive rainfall, totaling more than 90 inches, which coupled with difficult soil conditions to create a tough construction situation. In mid-January Chuck's last significant challenges included scraping the organic material out of the bunkers and trucking in more bunker sand, and the planting and renovation of many landscaped areas.

Chuck started working at Heron Bay in April 1995. Chuck's assistant, Deanna McAtamney, had worked with Chuck for several years at TPC at Eagle Trace before moving up the street to Heron Bay.

The TPC at Heron Bay includes 195,000 square feet of Tifdwarf greens, 390,000 square feet of tees, approximately 45 acres of 419 fairways, and over 16 acres of sand bunkers. The 45-acre practice facility includes 16 acres of fairways and a 120,000-square foot practice tee. Total acreage of 419 bermudagrass is 215. In

1997 a 400-room hotel and conference center will be opening adjacent to the golf course. The golf course maintenance facility is currently in a renovated farmer's maintenance building. The new maintenance facility will be built adjacent to the second hole in the fall of 1996.

The anticipated opening of the new TPC at Heron Bay is scheduled for May 1996.

During our visit the course was recovering well from the extended periods of cold weather we experienced this past winter. The fairways, tees and rough were in playable condition with good color and turf density. Several suggestions were made concerning the greens conditions in relation to rolling and Hydroject aerification. The discussions concentrating on greens grow-in practices were particularly interesting considering the number of years of construction experience that were onsite at that moment.

This informal meeting of area superintendents provided an excellent opportunity for me to document the spirit of the SFGCSA. We are just a group of people who share the same interests, responsibilities and challenges but have been able to keep developing relationships in our area to help each other through some of



Dale Kuehner, CGCS, Ed Miller, Steve Kuhn, Bill McKee and host superintendent, Chuck Green (left to right) discuss grow-in progress and problems at The TPC at Heron Bay. Photo by Bob Klitz, CGCS.

our more challenging situations. Bill McKee, Ed Miller, Mark Richard, CGCS, and Carlos McKeon are just a few of our members who have called on each other to help in times of need and received support from their fellow members. If you are not doing this in your chapter now, give it a try. You will probably benefit as much from the experience as the superintendent you go to visit.

## What's important to employees?

A survey was made of a cross-section of 25,000 employees from the U.S. industry and government organizations. They were asked to list and rank the items that they would like to have more of in their work. The items were ranked from 1 (most important) to 10 (least important) by these employees. The first ten items are shown below in random order. **Please rank them the way YOU think the employees ranked them.** (The survey was conducted a second time using different employees from different locations and the results came out the same both times.) *Editor's Note: The employee rankings can be found on page 74.*

YOUR RANKING	EMPLOYEE RANKING
_____	_____
_____	_____
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- Understanding and help on the job with personal problems.
- Promotion and growth.
- Full appreciation of work well done.
- Job security.
- Higher wages.
- Feeling "in" on things at work.
- Tactful discipline.
- Better working conditions.
- Loyalty to fellow employees.
- Interesting work.



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a consistent, prominent sponsor of all the major research tournaments, including the Envirotron, the Poa Annuua and G.C. Horn, the Crowfoot, and the Bud Quandt. We also give direct support to the University of Florida for turfgrass research, and we supply in excess of \$50,000 of equipment to the University of Florida and to Lake City Community College for educational training.

**We appreciate your support in our first ten years, and we are looking forward to serving you and the Florida turfgrass industry in the years to come.**



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*15th green. The Hamlet. Photo by Daniel Zelazek.*



# It takes a village

BY JOEL D. JACKSON, CGCS

Banyan trees marching down the medians of the roadways casting cool deep shadows as the aerial roots sway in the breeze seeking a new foothold. Sunlight filtering through pine needles and palm fronds. Bright and fragrant blossoms adorning the flowering trees, shrubs and annuals. Such were the sights greeting me as I turned into the entrance of The Hamlet this fine spring morning.



*Banyans, bottlebrush and pines surround the 2nd hole. Photo by Daniel Zelazek.*

This peaceful village of homes and golf course is located on an ancient sand dune in western Delray Beach, Florida. Blessed with well drained soils the flora and fauna flourish in this semi-tropical setting. The land for The Hamlet community was originally platted for condominiums. When instead it was developed for single family homes, there was an unprecedented spaciousness for the homesites, that now blend in unobtrusively with the mature golf course landscape.

Since 1973, The Hamlet Country Club, a design product of the legendary architect, Joe Lee, has been growing and changing with the times. In 1994, Lee was commissioned to oversee the renovation and rebuilding of the course. The members now enjoy improved greens, bunkers, tees and an expanded clubhouse.

Robin Goodell, an Ohio State agronomy/horticulture graduate, has

been the superintendent at The Hamlet for the past eight years. He is very pleased with the new greens and the other improvements, which allow him to deliver a better product for the members. "Our membership has been about 50% seasonal, but the number of year-round residents has been growing steadily. That was one of the key driving forces behind the renovation," said Goodell. "Normally, in the winter the overseeding masked the irregularities, mutations and contamination in the 22-year-old greens. With more people staying and playing in the summer months, they wanted to have the quality improved."

Robin and the Green Committee spent a long time searching and documenting the Tifdwarf variety selected for the greens. They finally settled on Georgia Certified Tifdwarf from Tifton Turf. They also decided on using Rapid Turf which is grown on plastic so a fully developed

root system is transplanted on the newly prepared greens soil mix. "One advantage I have seen with the Rapid Turf versus traditional field grown sod and sprigs is the lack of nematodes," said Goodell. "We have not treated the new greens for nematodes the past two years. In comparison, some field grown sod used on the greens surrounds were showing tell tale signs of spurge intrusions within the first year of installation. It is something to consider!"

Goodell continued, "There were some initial concerns about the encroachment of the more aggressive Tifway 419 into our new Dwarf collars and approaches. But, by having these wider dwarf perimeter areas around the greens, the members have come to appreciate that we can now manage these intrusions away from the greens and preserve the integrity of our putting surfaces.

Goodell, like so many others is sty-

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mied by the question of purity in the strains of bermudagrass the industry has depended on for nearly 30 years. “When I think back on some of the Ormond bermuda fairways at Doral and an Eveglades bermuda fairway I had at Miami Lakes I can’t recall any of the mutation and contamination problems we see today. I just wonder if the hybrid varieties are that stable over time?”

The maturity of the golf course poses other challenges for Goodell and the staff. “I believe that some trees that were planted at the inception of a new course were intended to be removed when their maturity began to cause problems later. When we were rebuilding one of the greens, we found a thick root mat intruding into the green from a ficus tree over 70 feet away. Within 18 months of cleaning out the roots and replanting the green they were back again causing stress to the green. We went back in and root pruned and installed bio-barrier to alleviate the problem.”

Another intrusion problem that has to be dealt with is the removal of thickets of brazilian pepper, an undesirable exotic that chokes out native plants. An aggressive program of removal and replanting with native and desirable species is a continuing project.

As we pulled up alongside one green, Goodell discussed his plans for managing an area of thin turf on the right slope. “This area has three things working against it. One, is the traffic pattern. The turf areas between the cart path and the front bunker and the walk off area between the greenside bunkers are too narrow. Two, this area is a low spot and holds too much moisture after rains. Three, there is too much shade from these trees for the St. Augustinegrass in the rough cut. Our solution will be: to put up some traffic control chain to get the carts on the path at the green; install a drain to carry off the excess water; and cut out the St. Augsutine and replace it with zoysia which is more shade tolerant.”

Besides managing new Tifwarf greens, the 23-year-old Tifway 419 fairways and roughs offers Goodell a challenge common to all superintendents. “The new



Hole #17 sports a new bulkhead as part of the 1994 renovation. Photo by Daniel Zelazek.



Hole #5 shows off many of the 100 bunkers that were rebuilt in 1994. Photo by Daniel Zelazek.

growth regulator, Primo, has changed the face of summer golf in Florida! As one of my peers once said, ‘it used to be a battleground and a hayfield!’”

Goodell had an unusual and unexpected experience with his first Primo application of 1996. “We applied the Primo on a Thursday and Friday. It was starting to take effect over the weekend. Then we got a four inch downpour and nearly 48 hours of cloud cover. The wet conditions spawned an outbreak of *Helminthosporium* on the fairways, and with the Primo kicking in we couldn’t mow and grow out of it. You could see bright green blades looking down into the turf, but the tips were discolored for about two weeks. Now the members love how they look!”

“As you can see from our fact page, we don’t oversee anything but our greens. Some members expressed concerns over

the periods of cold weather discoloration during the winter, but they are now comparing our spring look with those area courses that are having some transition problems with bare spots. It is one of the superintendents biggest jobs to communicate to his members the pros and cons — the actions and reactions — of every process and procedure we employ. Sometimes, they need validation from another source and Joe Lee has been very helpful in that regard, explaining some of the results and performance expectations of the turf under different regimens.”

“Another aspect of The Hamlet’s organization is the key role my Green Chairman and Co-Chairman play in communicating with our members. Every member who joins the board serves for three years and that really helps in long range planning, continuity of effort and explaining reasons for changing conditions.

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*A cypress tree guarding the 7th hole is just one of a wide variety of trees and plants at The Hamlet. Photo by Daniel Zelazek.*

We stay in touch constantly to avoid any surprises.”

While riding the course with Robin, I had the opportunity to watch a true professional in action as he introduced me to his crew, explaining who I was and what I was doing there that day. I watched him meet and greet member after member by name as we rode, and I marveled at how he could possibly remember the names and faces of several hundred people! I watched him give hands-on instruction to a crew member on how to accomplish the latest bunker lip modification. He spent a few minutes with Juan, the clubhouse gardener, asking how his recently ill father was doing. It was a good example of a person “walking the talk” of a leader.

“Honing your communication skills



is one of the most important aspects of being a professional no matter what the specialty. One fun thing I remember was the assistant superintendent at Muirfield when I worked there. He was a real “people person.” Unless he was under pressure from a project or special event, he would

make it a point on his second tour of the course to spend a few minutes with each employee to see how they were, if they had any problems and how things were going. It satisfied an emotional need and kept folks upbeat! I believe that you inspire others by treating them the way you would like to be treated. Everyone likes to hear a compliment once in awhile. After all, your staff is made up of human beings!”

“Also, you need to be happy with what you accomplish. If you’re not, then the members and the staff certainly won’t be. You can’t and won’t please everyone all the time. That’s why having a good relationship with your chairman is so important. I believe that setting high standards that exceed your members expectations will greatly improve your chances for success.”

On this trip, I found it did indeed take a village to raise a superintendent. For him to grow and mature like the golf course. Like the village itself.

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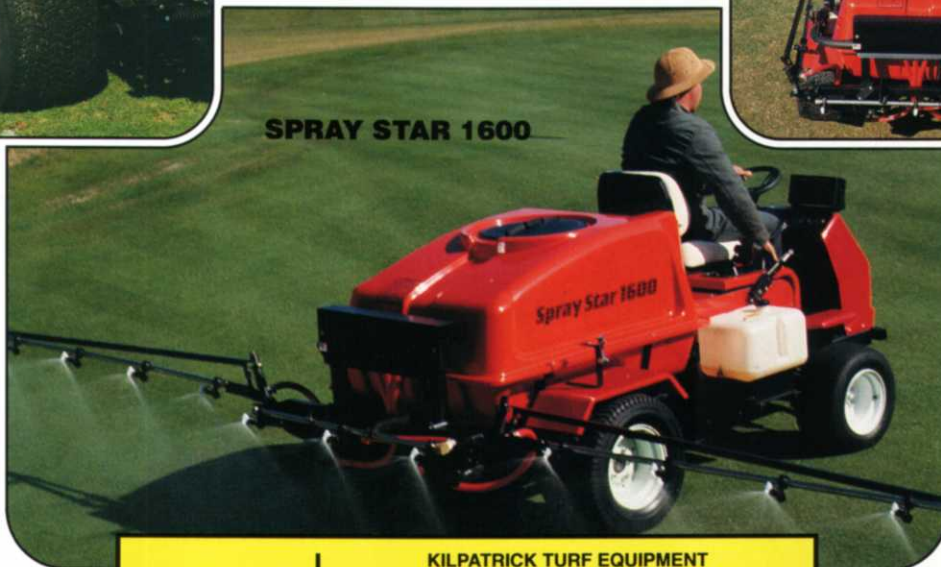


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*The Goodell family. Robin(left), Jodi(right), Jonathan and Christopher.*

## Robin Goodell

**Originally from:** Columbus, Ohio.

**Family:** Wife - Jodi Debra; Three year old twin boys - Jonathan Grant and Christopher Robin.

**Education:** Ohio State University - Bachelor's degree in Agronomy/Horticulture.

**Employment History:** 1988-present Superintendent, Hamlet C.C.; 1985-88 Superintendent, Royal Palm Yacht & C.C.; 1982-85 Superintendent, Miami Lakes Inn & C.C.; 1980-82 Assist. Supt. Doral Hotel and C.C.

**How did you get into the business?** Mr. John Oliver, Golf Pro taught me the game. When he also became the Superintendent, he hired me to help run the golf course.

**People in or out of the industry who have influenced your life and career:** Mr. Richard Lemmel gave me the opportunity at Doral to move to Florida. He also gave me the chance to learn and grow as a potential superintendent. My wife, Jodi, has always supported me in high and low times. She has been a terrific partner to grow and expand our lives.

**Memorable moments: Good, bad, humorous!** (1) The early mornings riding around a quiet golf course when the course feels and appears to be a total unified product. (2) Cutting a cup with the help of a real live snow monkey! The first golf course I worked on was next to the Columbus Zoo. A snow monkey had escaped and was living in the nearby woods. One morning I was cutting a cup when I turned around to find the monkey watching me from 10 feet away. After my initial surprise, he lost interest and wandered back into the woods. It was a different experience!

**Goals/Accomplishments:** (1) Working to help produce PGA Tournaments: The Memorial at Muirfield Village; the Doral/Ryder Open at Doral. (2) Building/rebuilding a golf course: the greens at Miami Lakes Inn & C.C.; renovating remodeling the Hamlet C.C. under the direction of legendary architect Joe Lee. (3) Want to expand my managerial skills to improve production in quantity and quality of our work. Continuing education in agronomy, horticulture and environmentalism.

**Personal philosophy of work and life:** Work - I have never envisioned my career as work, but rather a profession in which personal growth and learning should never stop. Growth and learning provide excitement and satisfaction that can be used to promote pride and confidence in your employees and yourself. Life - Always strive to find positives in anything you do. Life is too short not to take time to enjoy your accomplishments.

**Advice to prospective superintendents:** (1) Hone your communication skills! You win with people! Your employer and your employees! (2) Never stop learning! Only through learning from all people and situations can you enhance yourself to be a better professional and citizen.

**Professional affiliations:** PBCGCSA, FGCSA, FTGA, GCSAA.

**Hobbies & Interests:** The twins. Sailing my Hobie Cat. Golf!

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The golf maintenance staff of The Hamlet County Club. Photo by Joel Jackson.

## The Hamlet Country Club

**Location:** Delray Beach, Florida.

**Ownership:** Equity.

**Playing policy:** Private.

**Management Team:** Clubhouse Manager, Kevin Kenny; Club President, Mrs. Muriel Kornheiser; Head Golf Professional, Mark Morgan; Green Chairman, Mr. Harold Duris; Green Co-Chairman, Mr. Edward Turner; Past President, Mr. Belford Small.

**Designed by:** Joe Lee. 18 holes. Length = Blue 6,552 yds; White 6,278 yds; Gold 5,824 yds; Red 5,639 yds.

**Course/Slope Ratings:** Blue 71.6/130; White 70.3/128; Gold 69.2/127; Red 72.6/132

**Opened:** 1973

**Major projects:** 1994, Joe Lee renovation. Contractor: Tifton Turf. Used Rapid Turf grass for greens. Closed from June to September 1994. Rebuilt 21 greens and slopes; 100 bunkers; 8 tees; 2 bulkheads; added 1 waterfall; removed 2.5 acres of brazilian pepper; transplanted overgrown trees. Mid September to mid November, two months after re-opening re-paved all cart paths and added curbing for traffic control. In December 1994 and January 1995 after new clubhouse construction we installed new plant material,

irrigation and paving around the clubhouse. Also new landscaping and irrigation of new entrance/front gate complex.

**Acreage under maintenance:** 179 acres.

**Waterways =** 22 acres.

**Greens:** 3 acres. Average size = 6,700 square feet. Turf type = Georgia Certified Tifdwarf. HOC = 1/8" - 3/16". Overseeding = 1 pound Pencyross bentgrass in 1995 & 1996 season. May not overseed for '96-'97 season. Green speed goal = 8.0 - 8.5

**Tees:** 2 acres. Turf type = Tifway 419. HOC = 1/2". No overseeding

**Fairways:** 50 acres. Turf type = Tifway 419. HOC = 5/8". No overseeding.

**Roughs:** 55 acres. Turf type = Tifway 419, Floratam St. Augustine and Zoysia in shady areas. HOC = 1 1/4" - 2".

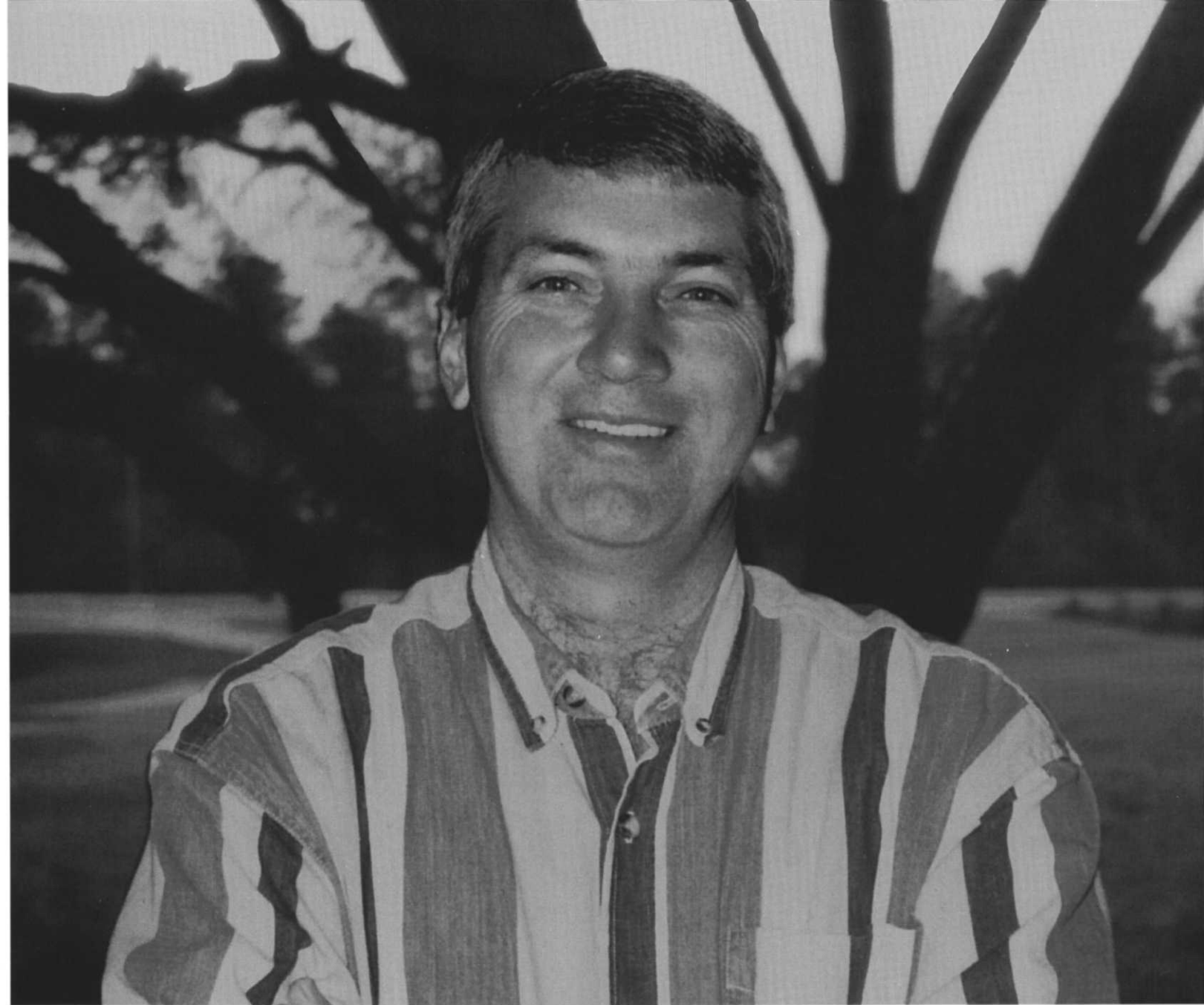
**Irrigation:** Source = wells that recharge lakes. Equipment = Sullivan Electric VFD pump station. Toro VTII Central Controls.

**Staff:** Total of 19 including the superintendent. Assistant superintendent, Charlie Oliver. Equipment technician, James Howell. Pest Control Tech, Robin Hinote. Irrigation Tech, Lou Oliverria. The staff is responsible for maintaining the golf course and the

landscape at the clubhouse, tennis courts, and Resident's Association front gate and roadways.

**Mowing equipment:** Greens & Collars = 8 Toro 1000 walk mowers; Tees = 2 Toro 3000 triplex mowers; Fairways = 1 Toro 11 blade 450D & 1 Toro 6700 Fairway mower; Roughs = 2 Toro 7 blade 450D's & 2 Toro 325 72" Rotary mowers with recycling decks.

**Cultural & Fertility Programs:** Aerify greens, tees and fairways once per year with a Soil Reliever with 1' hollow tines at 10" spacing and greens and tees once per year with a Ryan Greensaire II with 5/8" tines at 4" spacing. Also fairways with a Ryan pull-behind aerifier with 3/4" tines at 6" spacing. Pest Control all IPM administered as needed except wall to wall preemergent application in roughs. Fertility requirements based on soil tests and visual inspection of clippings harvest and color. Slow release materials with Milorganite in bulk applications. Liquid Ag fertigation to manage color and growth rates. pHairway water treatment to prevent salt build up and align soil chemistry for most efficient nutrient release. Lakes = have been using tilapia and grass carp to minimize need for chemical work in lakes by our aquatic contractor.



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This is what makes the 5500 a breakthrough in spraying technology. Controllability as never before. For precise, consistent applications. Thanks to features like an ergonomically designed cockpit. Dashboard instrumentation clustered directly in front of the operator. A foot controlled master on-off switch for hands-free boom operation. And more.



## Quietly Powerful

The Multi Pro 5500 is powered by a 45 hp, 4 cylinder, liquid cooled Ford industrial engine. Teamed with the most efficient hydrostatic drive ever designed. Giving the 5500 infinitely variable speed for easy going. And full power steering means there's quick turning maneuverability essential to spraying controllability.

What's more, considering its hard working power, the 5500 is remarkably quiet. Due primarily to its low tone muffler with exhaust pipe. Registering only 83 decibels at the operator's ear. Something your golfers and neighbors will also appreciate.

## Liquid Assets

The 5500 covers a lot of turf in little time. It carries an extra large 300 gallon elliptical polyethylene tank with no corners to trap chemicals. Even with the 300 gallon capacity, ground pressure is still limited to 10.9 psi, like that of a riding greens mower.

It also features jet agitation to produce the rolling action necessary for most effective mixing of spray materials. The elliptical shape also provides a lower center of gravity and easy access to the oversized 16 inch fillwell and anti-siphon valve.

# Multi Pro® 5500 Specifications\*

## MULTI PRO 5500, MODEL 41564

<b>ENGINE</b>	Ford, 4,cycle, 4 cylinder, overhead valve liquid cooled gasoline engine with centrifugal water pump. 45 hp (33.6 kW) @ 3200 rpm. 79 cu. in. (1.3 liter) displacement. Pressure lube/filter. 3.5 qt. (3.3 liter) oil capacity with replaceable filter. Distributorless electronic ignition. Forged connecting rods, cast iron cylinder head and block. Mechanical fuel pump. Heavy duty, 2-stage remote mounted air cleaner. Low-tone muffler with tailpipe.
<b>COOLING SYSTEM</b>	Mid mount radiator with oil cooler mounted in front of radiator. Cooling system capacity is 12 quarts (11.5 liters).
<b>FUEL SYSTEM</b>	11 gallon (42 liter) unleaded gasoline.
<b>TRACTION DRIVE</b>	Hydrostatic type, foot pedal control with electric pedal lock, 2 wheel motors and planetary final drives.
<b>GROUND SPEED/CLEARANCE</b>	Forward: 0-11.5 mph (0-18.5 km/h). Reverse: 0-4 mph (0-6.4 km/h). Ground clearance: 6.5" (16.5 cm)
<b>TIRES</b>	Front: 23x10.5-12, 4-ply rating, turf tread. Rear: 26.5x14-12, 4-ply rating, turf tread.
<b>BRAKES</b>	Individual totally enclosed, multi-disc, wet brakes and parking brakes on rear traction wheels. Hydrostatic braking through traction drive.
<b>MAIN FRAME</b>	Welded high strength steel tubing.
<b>SUSPENSION</b>	Front: straight axle with twin independent leaf springs, dual shock absorbers. Rear: rigid frame.
<b>STEERING</b>	Full hydraulic power with dedicated power source.
<b>GAUGES</b>	Sprayer pressure gauge, engine oil pressure warning light, temperature gauge, voltmeter, and hour meter.

<b>CONTROLS</b>	Foot operated traction pedal, brake, brake lock pedals, and remote boom on/off switch. Hand operated throttle, speed control, choke control, ignition switch, light switch, pressure increase/decrease, master boom on/off, hydraulic spray pump, agitator, and individual boom on/off switches.
<b>SEATS</b>	Twin molded cushions and back rests with hip restraints.
<b>ELECTRICAL FEATURES</b>	12 volt with 420 cold cranking amps at 0°F (-18°C) maintenance free battery. Dash mounted ignition switch, 51 amp alternator with I/C regulator. Automotive type electrical system. Traction interlock switch.
<b>LIGHTS</b>	Twin halogen headlights.
<b>SOUND LEVEL</b>	83 dB(A) at operator's ear under normal operation.
<b>WARRANTY</b>	One year limited warranty: refer to the Multi Pro 5500 Operators Manual for further details.
<b>PAYLOAD &amp; MGWV</b>	3,500 lb. (1,588 kg) payload. Maximum Gross Vehicle Weight (MGWV): 6,040 lb. (2,740 kg).
<b>WEIGHT</b>	Base Unit without Operator — 1,750 lb. (794 kg). Standard Spray System with Operator — 2,540 lb. (1,152 kg) - empty; 5,040 lb. (2,286 kg) - full. Spray System with all Accessories — 3,540 lb. (1,606 kg) - empty; 6,040 lb. (2,740 kg) - full.
<b>DIMENSIONS</b>	<i>Measurements with spray system —</i> Overall Length: 136" (345 cm) Overall Width: 72" (183 cm) Height: 57.5" (146 cm) Wheelbase: 78" (198 cm) Turning Diameter: 9' (2.7 m) — inside 25' (7.6 m) — outside Box Turning Width: 23' (7 m)

## MULTI PRO 5500 ACCESSORIES

SPRAYER ATTACHMENTS	
<b>SOLUTION TANK</b>	High density, impact resistant polyethylene with large 16" (41 cm) fillwell.
<b>RATED CAPACITY</b>	300 gallon (1,136 liter).
<b>PUMP</b>	Closed impeller hydraulic centrifugal. Adjustable hydraulic drive. 120 gpm (454 liters per minute), 100 psi (690 kPa) maximums.
<b>AGITATOR</b>	Three jet agitators for full tank length agitation.
<b>CONTROLS</b>	Electric jet agitator on/off valve, pump engagement switch. Electric solenoid valves to each boom section operated from console. Electronic pressure regulator with gauge.
<b>BOOM ASSEMBLY</b>	3-section, 18.5 ft. (5.6 m) working width. Breaks away fore and aft. Folds rearward behind tank for storage or transport. Optional Go Boom™ (Model 41030) or Sonic Boom™ (Model 41089) for added lift; individual control adjusts boom height to any angle.
<b>SPRAY NOZZLES</b>	Drift reduction, quick-disconnect with diaphragm check valves.
<b>MOUNTING</b>	Attaches easily with two bolts.

TOPDRESSER, MODEL 41570	
<b>HOPPER</b>	12 gauge steel, 45° sloped sides for free flow of material. Adjustable flow gate.
<b>CAPACITY</b>	30.4 cu. ft. (.851 m <sup>3</sup> ) at level; 3,500 lb. (1,588 kg) maximum.
<b>SPREAD WIDTH</b>	15 feet (457 cm)
<b>FLOW RATE</b>	Up to 1,350 lb. (612 kg) per minute.
<b>DRIVE</b>	Hydraulically driven conveyor and spinner.
<b>CONVEYOR</b>	Self cleaning pintle chain is formed alloy steel with heat-treated hardened steel pins. Heavy duty drag bars on 4-1/2" (11.4 cm) centers.
<b>SPINNER ASSEMBLY</b>	13" (33 cm) diameter, 10 gauge steel disc with 4 steel vanes gives a uniform trajectory distribution. Adjustable baffle chute standard.
<b>WEIGHT</b>	Base unit w/top-dresser and operator: 2,500 lb. (1,134 kg) — empty 6,000 lb. (2,722 kg) — full

CARGO BED, MODEL 41560	
<b>MODEL</b>	Model No. 41560
<b>BODY</b>	14 and 13 gauge steel with structural steel frame.
<b>CAPACITY</b>	3,500 lb. (1,588 kg) maximum.
<b>TAILGATE</b>	Double-acting with flow control adjustment; removable.
<b>LIFT SYSTEM</b>	Hydraulically raises bed angle to 47°, safety locking post. Double-acting cylinder with quick coupled hydraulic hoses.
<b>INSIDE DIMENSIONS &amp; WEIGHT</b>	Length: 66" (168 cm) Width: 49" (124 cm) Depth: 18" (46 cm) Shipping Weight: 490 lb. (222 kg) Base unit with cargo bed and operator: 2,450 lb. (1,111 kg) — empty 5,950 lb. (2,699 kg) — full

PA-17 SPREADER, MODEL 41502	
<b>HOPPER</b>	1/8" (3.2 mm) steel.
<b>CAPACITY</b>	17.1 cu. ft. (.478 cubic meters); 1,000 lb. (454 kg) maximum.
<b>WORKING WIDTH</b>	Adjustable, 15 to 60 feet (4.6 to 18.3 meters).
<b>DRIVE</b>	Hydraulic motor driven through a single universal joint and hub attached to spreader. Quick coupled hoses attach to main control valve.
<b>CONTROLS</b>	On/off lever and flow regulator from operator seat. Swath width adjuster on spreader.
<b>FLOW RATE</b>	Up to 625 lb. (284 kg) per minute.
<b>DIMENSIONS/WEIGHT</b>	Width: 51" (130 cm) Length: 51" (130 cm) Height (mounted): 59" (150 cm) Shipping weight: 400 lb. (181 kg) Base unit with spreader & operator: 2,450 lb. (1,111 kg) — empty 3,450 lb. (1,565 kg) — full

A Safety Reminder: prior to any application know the chemical content and the manufacturer's recommendation for protective clothing. Always wear proper clothing and mask when applying chemicals.

\*Specifications and design subject to change without notice. "Toro", "Multi Pro", "Go Boom", "Pro Control", and "Sonic Boom" are trademarks of The Toro Company, 8111 Lyndale Avenue South, Minneapolis, Minnesota, 55420-1196. Products depicted in this advertisement are for demonstration purposes only. Actual products offered for sale may vary in use, design, required attachments and safety features. Consult your local Toro distributor.

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## Standard Spray Precision

The 18.5 foot, three section rigid boom efficiently covers the largest areas right down to the tightest spots. In the event of impact, breakaway hinges allow

boom extensions to pivot rearward.

Using a high volume, low maintenance centrifugal pump, coupled with three 3/4 inch boom hoses, the Multi Pro 5500 spray system ensures virtually no pressure drop at the highest rates

of application for confident calibration.

Drift reduction nozzles mean more spray material on the target, and less in the air. And quick-disconnect hoses permit fast conversion to other attachments.

## Upfront Controllability

Operator comfort and easy operability are critical for spraying controllability. Starting with bucket seats to combat fatigue. A tight turning radius maximizes maneuverability. State of the art ergonomics to virtually make the operator and machine as one. Controls, gauges and boom indicator lights directly in front of the operator for accurate readings at a glance.

## Standard Spray Control

The 5500's standard operator-controlled system features fingertip controls for operation of individual boom selection, master boom on/off, and pressure adjust, all in a convenient console.



## Unique Pressure Control System

The 5500 has a unique pressure control system in that the pressure control valve is eliminated and spray pressure is adjusted hydraulically, direct from pump to boom, which provides faster, more accurate calibrations and saves on overall system energy resources.



# Sprayer System Accessories



## Pro Control™ Spray

The Pro Control system can significantly increase the efficiency of any spray program by automatically calibrating and maintaining an even rate on every area to be sprayed, regardless of vehicle speed or terrain. Accurate to within 1%, the Pro Control will quickly pay for itself in savings of time, labor and chemicals.

Clearly marked functions mean simple programming and operation without special training. The state of the art LCD display makes console viewing possible in bright sunlight or overcast weather. Two different application rates can be programmed and activated with a flip of a switch. And manual override is provided for spot

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# Six superintendents' 1996 plans for growth regulators and overseeding

BY JOEL D. JACKSON, CGCS

I know! I know! You're finally getting over the effects of the Winter of '96 and here I am talking about overseeding already! But, the Fall Issue comes out too late and history tells me that seed orders are placed by late summer. So, if there are any tips or ideas that might influence your planing for next year then I'd better run them now. Instead of questionnaires this time, I interviewed six superintendents at the Poa Annuu Classic representing the state from Duval to Palm Beach Counties.

## Alan Puckett, Lake Region Y & CC, Winter Haven



**JJ:** Alan, in 1991 when Lake Region was on the cover of The Florida Green, you were using a rye/Poa triv blend on your greens. Is that still the case?

**AP:** No, for the past three years, we have been using a blend of 2 pounds per thousand square feet of Pennway bentgrass and 10 pounds per thousand square feet Sabre Poa trivialis. The bermuda was a little thin going into the fall from all the rain so we ended up using an extra pound of bent and an extra two pounds of Sabre.

**JJ:** Did the old adage, "thin going in, thin coming out" prove true this spring?

**AP:** Oddly enough we had less thin areas than I thought we would. I figured we might need 3 pallets of dwarf and we only used one. Normally, we are on a stringent liquid fertilizer program all winter. When we had those weird warm spells this winter amongst all the cold periods, I applied IBDU and Milorganite which I

think helped us fill in with some background bermuda. We are definitely farther ahead than I thought we'd be.

**JJ:** How did you apply your seed with this new blend?

**AP:** I measured out the correct amount of bentgrass required for each green and mixed it with a bag of Milorganite. We then adjusted the cyclone spreaders to put it out in two directions over the green. We did the same with the Sabre but we went approximately 5 directions to put down the seed. After each application we lightly top dressed with a Terra Topper and watered it in.

**JJ:** How did you grow in the greens?

**AP:** We waited a day or two and then mowed late in the day without baskets and dragged them with a small piece of carpet to settle any seed on top. One to two weeks prior to seeding we raised the height of cut to 3/16" and stayed there for three to four weeks after seeding. Then we gradually lower the height down to 5/32". Our green speed goal is 8.5-9.0 when the grass is mature.

**JJ:** How did you manage the overseeding during peak season?

**AP:** Well, besides the extra granular fertilizers that I mentioned earlier, we used our normal rotation of alternating complete and minor liquid fertilizer applications. We would spike every two weeks conditions permitting and by late February early March, I would aerify with 1/4" solid tines for compaction especially in the collars.

**JJ:** What do you do to manage transition time?

**AP:** First I watch chronic hot spots when it starts to warm up, hand watering as needed. Then I start applying 17-1-10 at .75 pounds of nitrogen per thousand every two weeks. Depending on the weather we start sooner and go more often.

**JJ:** Any other comments about this season's overseeding.

**AP:** Well, during some of the colder spells the grass got beat down pretty good. As more dormant bermuda was exposed the off color turf was more noticeable and generated some comments from the members.

**JJ:** Another topic we want to cover is growth regulators. Where do you use them?

**AP:** Well, when a new product comes out, I like to wait and see how it works before jumping in. Last year we used Primo on our range and on our wetter fairways (12 oz per acre). Based on Steve Ciardullo's results at Mountain Lake, I may try 2-3 ozs per acre on my greens every two weeks. We will be using it more this year on our trap fingers and lake banks and on the fairways that have some common bermuda in them (16 oz per acre).

## John Gallagher, Boca Woods, Boca Raton.



**JJ:** Tell me about your season, John.

**JG:** I used 10 pounds per thousand of straight Sabre Poa trivialis this year. We had a great germination. I didn't even have to use

the extra seed I had in reserve to dust thin spots. We got them down to 1/8" this season. The members were real happy.

**JJ:** That's great! Tell us about the actual preparation and application process you used.

**JG:** Pretty simple actually. We just raised the HOC (height of cut) to 3/16"

prior to seeding. The next day we made two passes (different directions) with drop spreaders in the dew. After about six to seven days we started hand mowing at 1/4". Our collars did take a beating in this colder than normal winter, so we may overseed collars, tees and fairways next year! I applied Surlan pre-emergent to the collars this year. I will be trying something else, perhaps Barricade next year.

**JJ:** What did you do to manage the turf during peak season?

**JG:** Once the seedlings reach the three or four leaf stage we starting bumping the HOC down 1/32 of an inch through mid-January until we got to 1/8". This winter we had two Salsco rollers which made our greens a hit this year. They really helped us achieve the desired speeds more easily. Our fertilizer program is all foliar. Usually

20-20-20 at a 1/4 to 1/2 pound per thousand rate alternating with a minors blend.

**JJ:** How was transition in Boca Raton?

**JG:** Well, we had some serious transition this year. Yes, we had some thin areas. We try to explain in our club newsletter the effects of the alternating warm and cold weather this winter and how we have two

grasses competing and growing at the same time in the same place.

**JJ:** Tell me about your experience with growth regulators?

**JG:** I think it (Primo) is a valuable tool. Last year we targeted our fairways (8 oz per acre). We had over 80% suppression of the common bermuda seedheads. It was incredible. We got the best compliments on the fairways I've heard in my eight years here. We might try the greens this year.

**Bill Plante, Orange Park CC, Orange Park.**

**JJ:** Bill, with your weather up in Duval County, you fellows really depend on the success of your seeding programs. What do you use?

**BP:** For the past three years I have been very pleased with a blend of ten



pounds of Laser Poa trivialis and one pound of Southshore bent. We put it all out in one application.

**JJ:** Did this winter make you think about changing your blend?

**BP:** Not really! It was a tough winter no matter what seed you used!

**JJ:** What do you do to get your greens ready to seed?

**BP:** I like to have a few days growth on the greens when we seed so the seed will nestle down and stay put for dragging. Prior to seeding: we verticut two ways; raise the HOC to 1/4" and then stop mowing for a couple of days before seeding. We lightly top dress two ways with a Vicon spreader.

We go two ways with a cyclone spreader for the Laser and one way with a drop spreader for the bentgrass. Then in the afternoon we come back and make three more passes with the Vicon and drag it all in with a carpet drag.

**JJ:** When do you start mowing?

**BP:** We let the seed bed sit for eight to nine days or until I feel we won't pick up any seed. Then we start mowing at 1/4".

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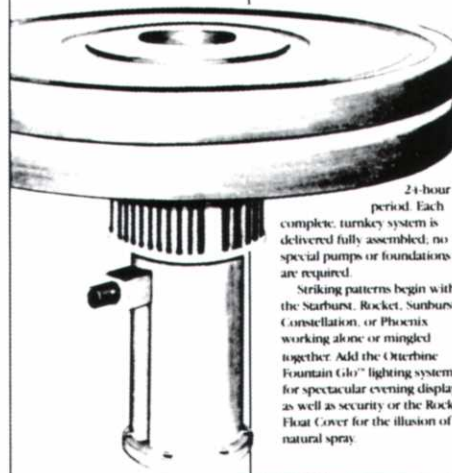
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**JJ:** What are your management practices once the overseed matures?

**BP:** We don't do too much to them from January through April other than an occasional rolling. In March, if they start to get hairy, we might do some light verticutting. We use liquid fertilizers like 20-20-20 and a minors blend with iron about once per month, primarily and may put out one to two granular applications of 13-2-13 at 1/2 pound of nitrogen.

**JJ:** How about your transition?

**BP:** Well, we aerified April 29th and 30th hoping to start thinning the overseed, but this spring has been so cool it only seemed to stimulate it. Normally, we increase our fertilizer amounts and the frequency of verticutting to help ease out the overseed.

**JJ:** Bill, have you used growth regula-

tors?

**BP:** Not that much. I used to think we couldn't afford to use it, but now I think we can't afford NOT to use it. We are resodding our bunker faces and adding a lot more flymo area. I'm going to try Primo there to help save some labor costs. I will also be trying it on my fairways and maybe even experiment on the greens.

*Those three superintendents gave us glimpses into programs from North, Central and South Florida. Here are the highlights from the next three interviews:*

**Peter Brooks,  
The  
Everglades  
Club, Palm  
Beach.**

**JJ:** Most superintendents I've been talking to have T i f d w a r f greens. Peter, you have Tifgreen 328



greens how do you prep them for overseeding?

**PB:** We start cutting back on the nitrogen in September. Just prior to seeding we verticut fairly severely four times. We go up and back the same pass in two different directions. Then we scalp them down. Quadra tine aerify, topdress, drag and then apply the seed. We are more aggressive because of the thatchy nature of 328.

Just before seeding we put down a 5-10-10 granular pre-plant fertilizer and spray the greens with 4 oz per acre of Primo to slow down the bermuda competition.

**JJ:** What else?

**PB:** Well, I like to apply Subdue the day before I expect germination. I take a one gallon pot and add soil and sow some seed the week before we do the greens. By checking the pot daily it is easier to see how long it takes for germination rather than trying to pick out the seedlings in the bermuda greens.

**JJ:** What about your peak season and

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transition management?

PB: We hand mow exclusively, double cutting as many as 5 times per week. We skip Sundays and Thursdays. I've found that double cutting, even at higher heights, produces a denser stand of grass and a good surface. To take out the overseed we drop the HOC near an 1/8" and top dress aggressively every two weeks. I use Dale Mitchell's top dressing blend that includes 6-9-16 fertilizer, humic acid and wetting agent. I think it helps promote the return of the bermuda. I also cut back the irrigation to every other night.

JJ: Are you using growth regulators?

PB: I think Primo has been one of the best advances in our industry. We used to bail hay in the summer. My club was built in 1919. We have a Heinz 57 variety of grasses out there. It's like a miracle providing uniformity, density and reducing seedheads and clippings. We are almost wall to wall in using it. I go 10 oz/A on my tees and 12-13 oz/A in the roughs.

### Joe Ondo, Winter Pines GC, Winter Park.



JJ: Joe, what are you doing different these days?

JO: We used to seed the first of November and try to be up and growing by the Thanksgiving holidays which is a busy time for us. This year we seeded the first week in December. We stayed with our Gator, Derby and Regal rye mix at 30-35 pounds per thousand and added 2-5 pounds of Winter Play Poa triv per thousand two weeks later to fill in any voids or thin pots after the rye was up. It was one of our best catches ever! Next year, less rye and more Poa triv.

JJ: Anything else unusual?

JO: We have seven greens that are new. We spiked all the greens three to four ways, but we also verticut the older greens two ways before seeding. We used the Rubigan program to treat some greens that had a Poa annua problem in the past.

But we will just monitor them next year. Because of the age difference we also supplement our IBDU and Liquid fertilizer program with some 0-8-16 on the newer greens.

JJ: How about transition?

JO: As you know we are a very busy public course so we try to hold the overseeding until Memorial Day. We spike weekly in March and lightly verticut going deeper gradually. Then we renovate in June. If the collars are weak we just do the greens. I increase the fertility by using 19-0-17 and 1/2 pound per thousand of ammonium sulfate or nitrate.

JJ: Have you tried growth regulators?

JO: Last year was the first year. I put some on the fairways once and watched the turf response. We used it on our range and wetter fairways. The turf tightened up and could support the weight of our large mower. I'm not sure about using it on greens or tees. If you have a disease, how do you grow it out? Not ready to go once per month, but it is a tool that can be used under special circumstances.

### Mark Hopkins, Sun N' Lake, Sebring.

JJ: Mark, tell me something new?

MH: Well, I use straight Gator ryegrass at 30 pounds per thousand. We close each nine for a week. I verticut and drag brush them the day before we seed. I use Harrell's 6-12-18 starter mix the day after the seed goes down. We keep them moist till they germinate. I keep them at 1/4" for a month and drop them to 5/32" after January 1st.

JJ: How about routine management?

MH: From January on we lightly verticut and top dress every week and a half to two weeks conditions permitting. We try to maintain green speeds between 8 and 9. By mid April we are verticutting and aerifying. I check greens color and clippings harvest to determine when to fertilize. Generally, we apply 14-2-14 once per month with an iron supplement for color as needed. Going into the renovation we'll pump them up with a little sulfate or nitrate to stimulate the bermuda.

JJ: Are you a Primo fan also?

MH: Haven't used it! Going to use it

this year. We are closing nine holes this summer to rebuild some greens and I'll use it on the fairways to save time. Then we'll see how it goes!

## RUB OF THE GREEN

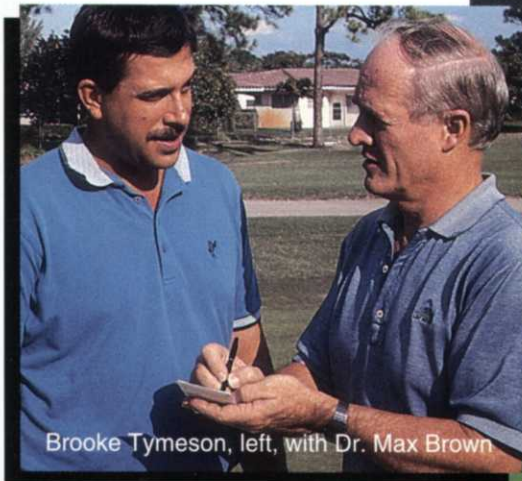
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*Editor's Note: America On Line E-mail from CPTxAggie from a "GCS newsletter in the Northwest."*

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Brooke Tymeson, left, with Dr. Max Brown

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# Distinguishing off-types in Tifway and Tifdwarf bermudagrass

BY PHIL BUSEY, AL DUDECK, CHARLIE GUY AND NIGEL HARRISON

*Interim report, July 1995 through May 1996*

## Objective and Brief Summary

**T**he research will determine the feasibility of distinguishing off-types in Tifway and Tifdwarf bermudagrasses.

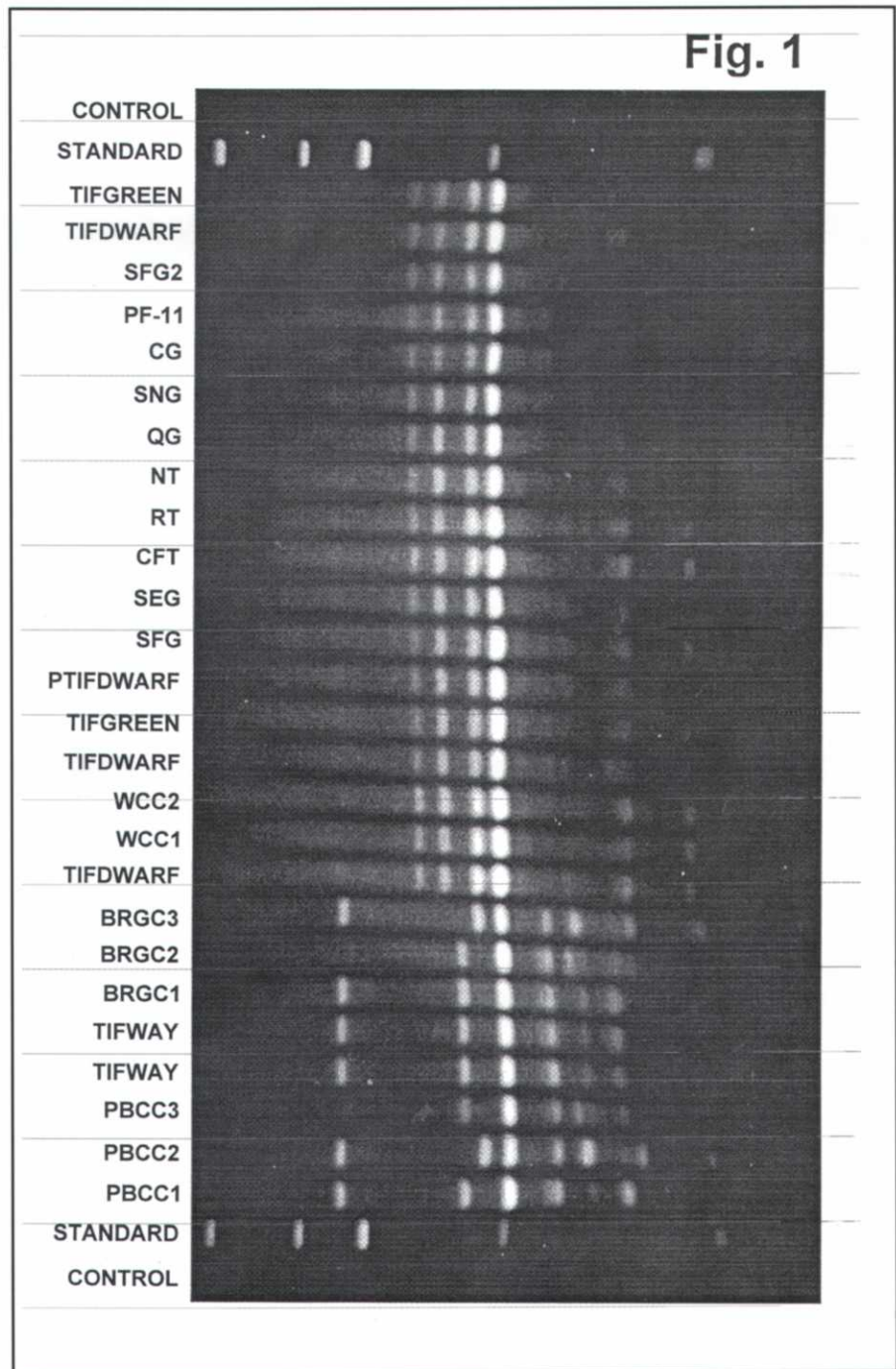
We have found that DNA banding patterns are powerful in distinguishing off-types from Tifway. Samples of fairway off-types from different golf courses can be matched by their RAPD patterns. Therefore, the off-types appear not to have originated on the various golf courses, but were carried in as planting stock.

For the greens, in contrast, few DNA bands distinguish Tifdwarf from its apparent off-types. We are retesting recollections of one interesting off-type, T-74, which appears to have several distinctive DNA banding pattern differences from Tifdwarf. If we can show again that off-types did not originate on, but were carried to, a golf course, this would minimize the role of recurring mutation as a source of off-types. Morphology data are complementing DNA banding pattern data.

## Background

The main idea of the proposal is that DNA banding patterns (i.e., RAPD mark

*Fig. 1. Image of PCR amplification products from 26 bermudagrasses, based on primer AK18. ("Standard" refers to a molecular size reference, and is not grass DNA.) At the top, the banding patterns for 18 greens bermudagrasses (Tifgreen, Tifdwarf, SFG2, . . . Tifdwarf) were indistinguishable. In striking contrast, the banding patterns for 8 fairway grasses at the bottom of the image (BRGC3, BRGC2, . . . PCC1) varied.*



ers) might distinguish bermudagrasses, thereby helping in quality control.

RAPD markers provide a relatively inexpensive genetic identification tool, but the method is prone to possible errors. To generate diagnostic banding patterns, varying-size fragments of sample DNA must be multiplied or "amplified" using "primers," short pieces of DNA that recognize a specific DNA sequences from the unknown grass. Because amplification is a sensitive step in the RAPD process, we have attempted to control error by selecting primers that are consistent, and we have exchanged primers and procedures between our two laboratories, at Gainesville and Fort Lauderdale. Morphological traits, including chromosome number, are being developed as a potentially faster and cheaper method of prescreening for genetic off-types.

#### Work Completed

We have completed the screening of 130 primers ("Stage 1" in the proposal), have tested their repeatability ("Stage 2"),

have exchanged 11 primers between locations (beginning of "Stage 3"), and have completed the application of primers to a population of 26 grasses ("Stage 4," which was planned for the second year). We have further retested selected primers on six additional fairway samples. We have initiated a study of morphology ("Supplement"), including a replicated grow-out, and preliminary work on roottip chromosomes. (For an explanation, see the original proposal.)

#### Work Remaining

We will complete the retesting of exchanged primers on bermudagrass which can be distinguished ("Stage 3") and complete the morphological study of all 26 bermudagrasses, including chromosome numbers, and complete a final report by July 1997.

#### Results Thus Far

We found several primer-derived markers for distinguishing fairway off-types, but few markers for distinguishing

greens off-types. This is apparent in the image for primer AK18 (Fig. 1). The banding patterns for 18 greens bermudagrasses (Tifgreen, Tifdwarf, SFG2. . . Tifdwarf) were indistinguishable. The banding patterns for 8 fairway grasses (BRGC3, BRGC2. . . PCC1) varied. As another example, primer 719 (Fig. 2) showed that the dominant matrix grass on fairways of two golf courses was indistinguishable from the Tifway foundation, but two off-types from fairways of each golf course were not Tifway. Furthermore, the off-types matched across golf courses, indicating that they had been propagated and planted from a common source, possibly as a contaminant, and not through recent mutation or seedling variation. The genetically matched bermudagrasses were also similar morphologically, and the off-types produced abundant pollen, so they must be tetraploids ( $2n = 36$ ). We found that a uniform, desirable, fairway grass (T-20) from a third golf course matched the genetic signature of the dark-green

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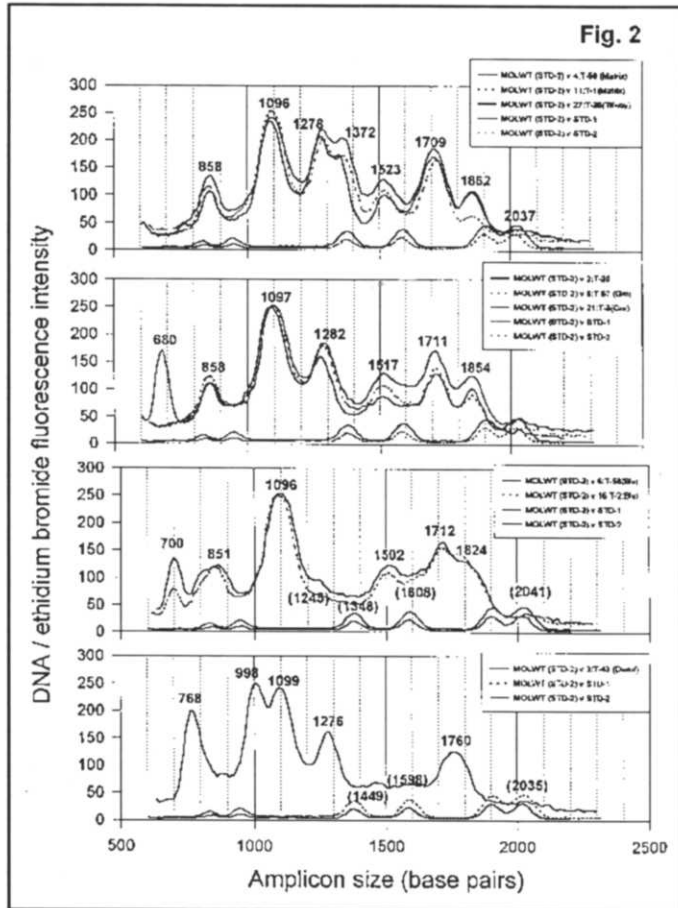


Fig. 2. Comparison of DNA profiles of nine bermudagrasses from PCR amplification with UBC primer 719. Ethidium bromide fluorescence intensity in an agarose gel was resolved at 75 dpi (dots per inch) in a digitized scan of an enlarged photograph, maximizing digital contrast. This is the second amplification in a series, hence the designation 719-2. The profiles of similar grasses (e.g., Tifway = T-35 and matrix grasses T-1 and T-56) are superimposed. Another 17 grasses were indistinguishable from Tifdwarf, thus they are not represented. Towards the bottom of each panel are the profiles of the two molecular weight standards. Amplicon sizes of the sample bands were estimated as a log-quadratic function of migration distance. The function was derived by least-squares regression of the known base pair sizes of the standards (831, 947, 1375, 1584, 1904 and 2027) on their respective migration distances. All peaks were fitted iteratively using a Gaussian amplitude curve with a smoothing coefficient of 11 (PeakFit, Jandel Scientific, San Rafael, CA):

off-type from the other two golf courses. Morphological data (e.g., leaf texture and pollen production) indicated that many other fairway bermudagrass accessions are not Tifway.

Clustering based on morphological differences (internode length, stolon thickness, and number of inflorescences) brought unknown fairway bermudagrasses together in plausible groups, consistent with the original field observations (Fig. 3). Subsequent DNA profiling of six more fairway variants showed a repetition of similar patterns, which resulted in a clustering of genetic relationships (Fig. 4). The results from DNA complemented the morphology.

We found DNA patterns from six primers that may distinguish some greens grasses (including foundation standards, trade types, and off-types). The banding patterns for some primers were unstable among extractions from the same grass,

producing spurious results. Only one primer, CG119, showed banding pattern variation among more than three greens grasses. One dwarf-type grass, T-74, was distinguishable, using any of four primers, from Tifdwarf and all other greens grasses. However, this result awaits confirmation at Fort Lauderdale. Therefore, 36 new samples were recollected from the same golf course, in the expectation that we might be able to show the repeated occurrence of T-74 across different greens. While the RAPD patterns for fairway bermudagrasses are strong and consistent, we need to cautiously retest those on greens bermudagrasses, because of repeatability problems inherent in the RAPD method. Among green bermudagrasses, there were differences in stolon thickness ( $P < 0.05$ ) and internode length ( $P < 0.0001$ ). Surprisingly, the foundation Tifdwarf and foundation Tifgreen clustered together, while several trade types and off-types clustered together (Fig. 3). These results are very interesting and encouraging.

**Possible Significance**

While this work is ongoing, several possible conclusions are anticipated:

1. The sparseness of RAPD markers which distinguish among greens bermudagrasses, e.g. Tifdwarf and its off-types, is consistent with their possible origin as point mutations. PCR-based DNA profiling, such as RAPDs markers, may not presently be a practical means of

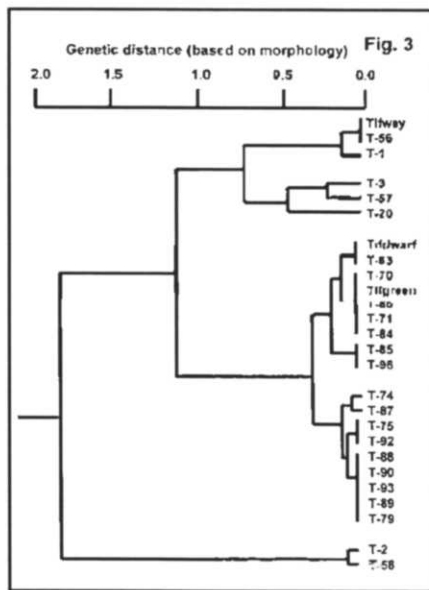


Fig. 3. Phenogram of genetic relatedness of 26 bermudagrass samples based on three morphologic traits (stolon thickness, internode length, and number of inflorescences per pot). Cluster analysis was performed on the matrix of Euclidean genetic distances by the unweighted pair-group method (METHOD = AVE, the CLUSTER procedure of SAS 6.03, The SAS Institute, Cary, NC). Bermudagrass samples with a genetic distance close to zero (e.g., Tifway T-1 T-56) were not statistically different. Grasses T-2 and T-58 branched close to the main trunk, which reflects heavy weighting for the prolific seedhead production of those two samples.

identification for greens bermudagrasses.

2. Morphological variations were detectable among greens bermudagrasses, at the 0.01% probability level, thus real genetic differences exist. In other words, based on preliminary data, not all products labelled as Tifdwarf are really Tifdwarf.

3. The abundance of RAPD markers which distinguish among fairway bermudagrasses, their contrasting morphology, and the presence of abundant pollen in the off-types, is consistent with their origin as seedling variations.

4. The recurrence of matching genetic off-types on fairways from different golf courses is consistent with their having been planted, not arising after planting. If we can show the same for greens, then it will support the idea of a need for stepped-up quality control in the expansion of plant material.

5. At this time, an absolute assurance of genetic purity does not exist; rather, the Greens Committee should be aware

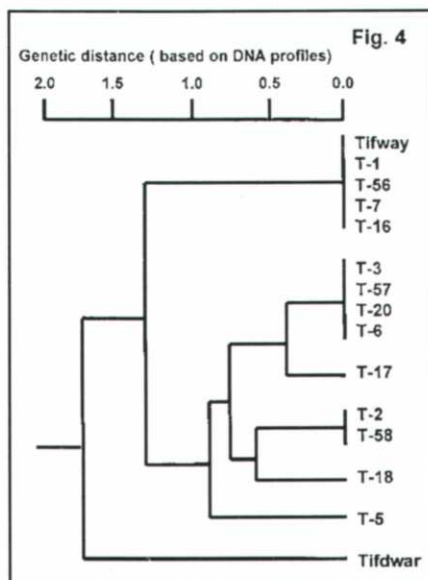


Fig. 4. Phenogram of genetic relatedness of 15 bermudagrass samples based on 25 RAPD markers and five common bands derived from seven primers. A pairwise index of genetic distances was obtained (Nei and Li, 1979) from a presence-absence matrix. Cluster analysis was performed on genetic distances by the unweighted pair-group method. Bermudagrass samples with a genetic distance of zero (e.g., Tifway = T-35, T-1, T-56, T-7 and T-16) were identical for the presence or absence of all 25 RAPD markers. T-17 was relatively close to the cluster of T-3, T-57, T-20 and T-6, differing in the presence or absence of only 3 bands. Bermudagrass samples which branched far to the left of the main trunk (e.g., Tifdwarf = T-43, genetic distance = 1.733) had many (between 12 and 18) band differences from all other samples.

that off-type variations typically are noticed several years after bermudagrass areas are planted, even after the most diligent research by those involved in the purchase of planing material. Once noticed in established playing areas, off-

types tend to become more prevalent over time.

6. It may be possible to use this technique to distinguish genetic variants that are superior to Tifway for use on Florida golf courses.



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# Response of 'Tifdwarf' Bermudagrass to Seaweed-Derived Biostimulants

BY M. L. ELLIOTT AND M. PREVATTE

*Edited by Joel Jackson from a paper accepted by the refereed journal HorTechnology.*

**S**ummary. "Tifdwarf" hybrid bermudagrass grown on a putting green in southern Florida was treated for two years with two seaweed-derived biostimulants, Kelpak and PanaSea' Plus. No significant treatment difference were observed in turfgrass quality (44 observation dates) or root weights (eight collection dates). On only 1 of 22 collection dates for clipping weights was a significant difference obtained among treatments. Although the biostimulants did not enhance plant growth or quality, neither were they harmful to the turfgrass.

The primary concerns of golf course superintendents in southern Florida are the short lengths of hybrid bermudagrass roots and periodic declines in turfgrass quality that can be observed on putting greens year around. Most putting greens in southern Florida are maintained at a height of 4.7 mm or less. This places a stress on the plant since little leaf tissue is present to support photosynthesis. The photosynthetic rate is reduced even further by the reduction in light intensity during overcast, rainy weather typical during summer and fall. As demonstrated for common bermudagrass, low light intensity reduces biomass allocation to rhizomes, an effect that is stronger for short plants, such as those on golf greens. High soil temperatures also increase the shoot:root ratio of bermudagrass. Due to the subtropical climate, the bermudagrass does not become dormant during the winter, but its growth is reduced if extended cool temperature periods occur.

Biostimulants are products that are non-nutritive promoters of growth. Growth can be promoted by stimulating nutrient uptake, chelating nutrients, providing plant growth hormones or en-

hancing plant hormonal activity. Biostimulants that contain plant growth hormones can be produced synthetically or obtained from natural plant extracts. The latter are primarily obtained for the brown algae family Phaeophyceae, commonly called seaweed or kelp. Applications of seaweed preparations have increased plant growth, including root growth. This plant response is often associated with the presence of plant hormones, but the seaweed extract may also act as a nutrient chelator.

Biostimulants that contain plant growth hormones have benefited cool-season turfgrass under drought stress or salinity stress. They also enhanced growth of creeping red fescue and Kentucky bluegrass seedlings and Kentucky bluegrass sod. Although these biostimulants darken bermudagrass leaf color in temperate climates in the fall, no research has examined the effects of the plant-derived biostimulants on bermudagrass putting greens in a subtropical climate. Our study conducted in southern Florida, evaluated two commercially available seaweed-derived biostimulants, Kelpak and PanaSea' Plus, for their effect of "Tifdwarf" bermudagrass quality, clipping weight and root weight.

## Materials and Methods

A field experiment was conducted from May 1992 through April 1994 at the Fort Lauderdale Research and Education Center on an established "Tifdwarf" bermudagrass research golf green built with a root-zone mix containing 80% sand and 20% Canadian sphagnum peat moss. The area was vertically mowed and topdressed approximately once per month, with the depth of vertical mowing depending on thatch layer thickness.

Topdressing material was the same as the root-zone mix. The turfgrass height was maintained at 4.7 mm by mowing six times weekly. The area was irrigated as needed to maintain the best possible quality.

The area was fertilized every two weeks using a fertilizer blend containing IBDU™, potassium magnesium sulfate, iron sulfate and manganese sulfate. For both nitrogen (N) and potassium (K), a total of 879 kg/ha<sup>-1</sup> of each nutrient was applied per year. Phosphorus was applied twice each year at 122 kg P/ha<sup>-1</sup> per application. This is similar to the average fertility program used in southern Florida.

Treatments included an untreated control, Kelpak applied at 6 wk intervals and PanaSea' Plus applied at 2 wk intervals and at 4 wk intervals. Kelpak contains 0.3N:0.7P:0.6K and is derived from the brown alga *Eclonia maima* from which several indole compounds have been identified. PanaSea' Plus contains 0.2N:1.3P:1.7K and is derived from numerous seaweeds including *Laminaria* spp., *Chondrus crispus*, *Porphyra* spp., and *Ascophyllum nodosum*. Both products are liquids.

Biostimulants were applied according to the manufacturers' directions. The first Kelpak application was made as a drench with 1.4 ml/mm<sup>2</sup> Kelpak applied in 500 ml/mm<sup>2</sup> deionized water; all subsequent Kelpak applications were made as broadcast sprays at 0.3 ml/mm<sup>2</sup>. PanaSea' Plus treatments were applied as broadcast sprays at 1.3 ml/mm<sup>2</sup>. Broadcast sprays of both biostimulant products were made in 100 ml/mm<sup>2</sup> deionized water. Each plot was 2 m x 3 m with four replicated per treatment in a randomized complete-block design.

Turfgrass quality ratings were deter-



mined based on observation of grass color and density using a scale of 1 to 10 with 10 representing turf with a dark green color and uniform dense stand. The plots were rated approximately every two weeks, one week after each nitrogen application.

Turfgrass clippings, from plots that had not been cut for 48 hr, were collected once each month from a 1 m<sup>2</sup> area in the center of each plot. Clippings were dried at 60C for 72 hr and then weighed. When possible, we tried to rate and collect clippings on the same day or subsequent days.

Root weights were obtained every three months. At each sampling date, two 15 - cm diameter by 10 - cm deep samples were obtained from each end of each plot for a total of four sub samples per pot. Root samples were not collected randomly with the plot because samples collected from the center would have resulted in voids that would have interfered with clipping weight evaluations. A 1.25 cm cap was cut from the top of the sample and then discarded to remove leaf tissue and the majority of the thatch layer. Samples were then processed with a commercial root washer using 760 µm primary and secondary sieves. The accumulated material was dried at 80C for 36-48 hr and then weighed. Weights from the four sub samples of each plot were added together to obtain the total weight per plot. Resulting "holes" from sampling were filled with topdressing material.

Data were analyzed using the ANOVA procedure; the Waller-Duncan k-ratio t test was used to separate means.

### Results and Discussion

Quality ratings were obtained on 44 dates. Except for eight dates, there were no quality differences among any plots of any treatment; the entire experimental bermudagrass area was uniform in color and density. Differences among treatments for those eight dates were not significant (data not shown). Clipping weights were collected on 22 dates, but significant treatment differences were obtained only on 27 January 1993 (Table 1). However, there were no quality rating differences among any plots of any treatment on that same date. Root weights

were collected on eight dates, and no significant differences were obtained among any treatments on any date (data not shown).

Although other research has demonstrated that turfgrasses respond best to hormonal biostimulants when the turf is under environmental stress, no benefits were observed in our experiment during stressful periods such as extensive rainfall or cool temperatures. For example,

112.5 cm rain was received between 1 June 1993 and 31 October 1993. The turfgrass quality gradually declined during this time period, but no quality rating difference were observed among any treatments.

Researchers who have worked with both cool-season and warm-season turfgrasses have indicated that warm-season turfgrasses do not respond to hormonal biostimulants as well as cool-sea-

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Clipping weight (grams)<sup>2</sup>

Application		1992						1993			
Treatment <sup>1</sup>	Interval	29 July	27 Aug.	23 Sep.	28 Oct.	27 Nov.	30 Dec.	27 Jan.	24 Feb.	7 Apr.	21 Apr.
PanaSea Plus	2 weeks	7.47	5.20	5.07	1.84	4.10	4.25	2.71 a	3.18	6.42	4.65
PanaSea Plus	4 weeks	8.09	5.45	5.00	1.71	4.22	3.47	2.74 a	3.17	6.05	4.08
Kelpak	6 weeks	7.59	6.18	5.79	1.63	4.00	3.78	2.28 b	2.84	6.27	4.30
Control		7.28	5.47	5.23	1.59	4.19	3.96	2.65 a	3.28	6.62	4.58
Pr>F		0.89	0.43	0.51	0.47	0.96	0.23	0.05	0.84	0.88	0.84

<sup>1</sup>PanaSea Plus application rate was 1.3 ml m<sup>-2</sup>; Kelpak application was 0.3 ml m<sup>-2</sup>

<sup>2</sup>Values are means of four replicated plots. F values were too small to conduct mean separation test on all dates except 27 January 1993.

Mean separation for that date by Waller-duncan k ratio t test (P=0.05)

**Table 1.** Effect of Seaweed-derived biostimulant application on 'tifdwarf' bermudagrass clipping weights during the first year of the study (May 1992 through April 1993)

son turfgrasses, and that the responses are highly variable. In our experiment, a consistent lack of response was observed over the two year study period. Although the seaweed-derived biostimulants did not enhance plant growth or quality, neither were they ever harmful to the turf-

grass. Before a golf course superintendent applies these products to all of the putting greens on the course, it would be advantageous to only treat half of two or three greens to determine if a response will be observed. This would save both time and money if there is no response.

**Acknowledgements**

This research was supported, in part, by the Florida Golf Course Superintendents Association. We thank Scott Chasse and Anthony McCall for technical support.



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*Hole-in-the-Wall is unique in South Florida. It is a golf course adapted to its natural surroundings. Nature and golf are to be enjoyed equally.*

## *Don't hurry, don't worry, and be sure to smell the flowers along the way*

BY SHELLY FOY  
*USGA Green Section*

From: The introduction of Hole-in-the-Wall Golf Club: A History

"Hole-in-the-wall" is unique in South Florida. It is a golf course and only a golf course.

It is adapted to the natural surroundings. The flora and the fauna remain intact. Nature and golf are to be enjoyed equally. "

"You're only here for a short stay  
Don't Hurry, Don't Worry,

And be sure to smell the flowers along the way."

Located a couple of miles north of the center of Naples, Hole-in-the-Wall is 200 acres with an 18 hole golf course and no houses on property. There are 90 acres of

play area, 20 acres of non-play area, 30 acres of roughs, 50 acres of swamps and woodlands and 8 to 10 acres of open fresh water. There are no natural streams or creeks, however, the Gordon River, although not visible, runs along the eastern boundary of the property.

Ron Sanborn, Golf Course Superintendent, gives a little history of the golf course: "Back at the turn of the century, what is now Naples and its surrounding areas was divided by a swamp known as "The Wall" because it could not be crossed by land traffic. Eventually a path was built through the swamp and became known as "The Hole in the Wall."

In 1944, Ed Frank purchased 200 acres

which was named "Hole-in-the-Wall Ranch".

Mr. Frank was responsible for many things around town, including his invention, the swamp buggy.

At the time, the Naples Beach Hotel and Golf Club was the only golf course in town.

The course was used primarily by hotel guests, but annual memberships were sold to local residents. At the same time, Port Royal was being developed with only a social club and no golf course. As Naples continued to grow, it was apparent that one golf course would not accommodate everyone.

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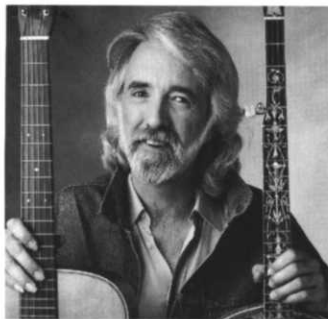
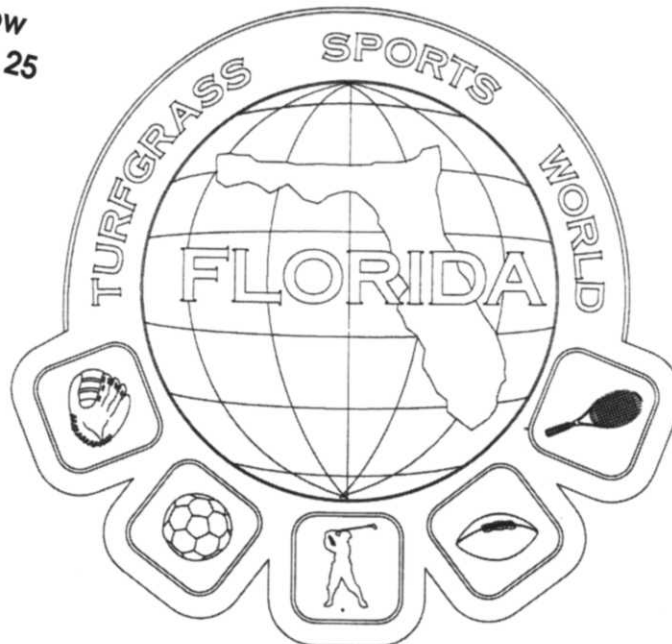
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Hole-in-the-Wall Golf Club. Dick Wilson was hired as the golf course architect. The club opened in 1958 as the first private golf course in Naples. The members today play a Par 72, 6,286 yard course."

On January 4, 1994, Hole-in-the-Wall Golf Club became the 11th golf course in the country and the 2nd in the State of Florida to become a fully certified Audubon Cooperative Sanctuary. Becoming fully certified was only the beginning for Hole-in-the-Wall however, and they continue to implement the principles of the Audubon Cooperative Sanctuary Program (ACSP) as part of every day operation of the golf course.

### Constant and committed leadership

Every project needs a leader, and in the case of Hole-in-the-Wall, Fred Yarrington has really made a difference. Since joining the program in January, 1992, Hole-in-the-Wall Golf Club has had a constant and dedicated leader of the Audubon Cooperative Sanctuary Program. Mr. Yarrington is a former Green

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Chairman and Board Member of Hole in the Wall Golf Club. He is a current member of the U.S. Junior Championship Committee and former Director of the Connecticut State Golf Association.

According to Mr. Yarrington, “I think it would be difficult to generalize on how to become certified in each of the categories. So much is dependent on the characteristics of each individual golf course. We’re lucky to be located in an area friendly to wildlife and with no housing bordering the golf course.

We have been amazed at how little cost and effort there can be in a program of making a golf course more compatible with the environment. To anyone considering the program, I would point out that they should expect a great deal of interest and support from their membership.

Although it is difficult to evaluate the program in dollars and cents, I am certain by following Audubon suggestions, we will save much more long term from the program than any of the modest expenditures we have made directly. The plus in all of our efforts is that raising the level of environmental consciousness is truly cost effective in the long term.”

Mr. Yarrington is generous in his willingness to share information and help other courses get involved with this program. He stays in regular contact with several other ACSP member courses in the Naples area. He serves as ACSP Resource Committee Chairman and has put together an enviable committee who have worked together to make Hole-in-the-Wall an even better place for golfers and wildlife. Other members of the Resource Committee are listed in the accompanying sidebar.

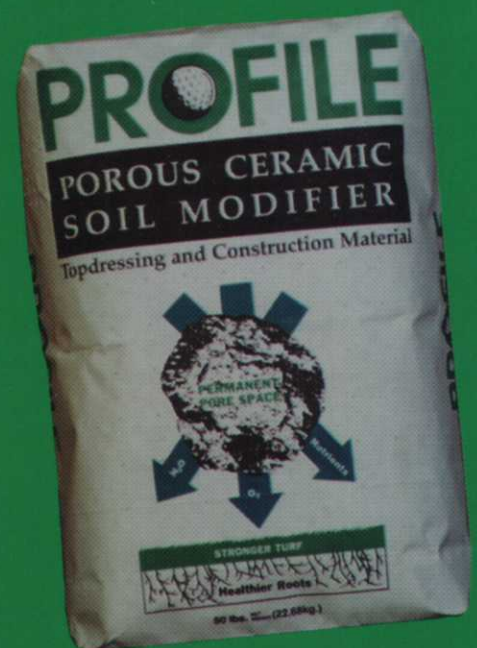
The property is surrounded by Royal Poinciana Golf Club to the north and east, and Wilderness Country Club to the south. One quarter of the total property is unused and the majority of this is maintained in a natural state. The large acreage of cypress swamps, woods, water and open space on the property provide a great diversity of wildlife, as evidenced by the wildlife inventory seen at Hole-in-the-Wall. This in addition to the open space provided by the surrounding golf

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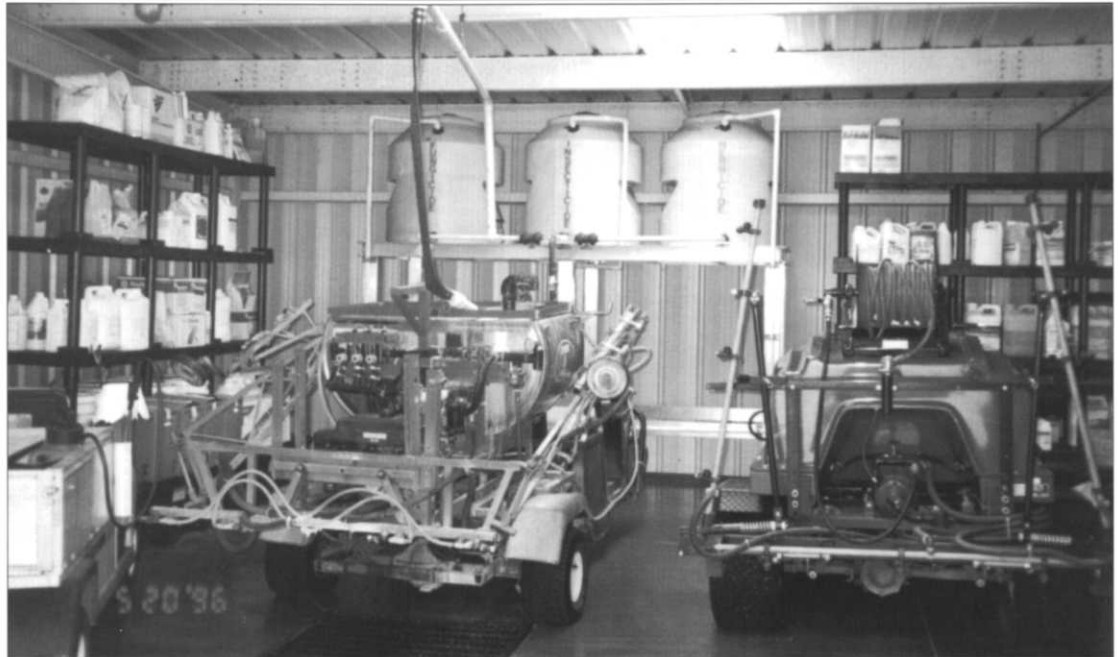
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*Perhaps objectives is a better term than goals, since as long as we continue participation in the program, the goals will never be reached because there is always a new idea or project which would have a positive effect on each of the three stated goals."*

courses, creates a large corridor for wildlife.

What stands out most about Hole-in-the-Wall is their continued support and commitment to the ACSP. Even after becoming a fully certified Audubon Cooperative Sanctuary, they continue to research and implement projects to provide the membership with a first class golf facility that is in harmony with nature.

In 1992, the Hole-in-the-Wall Golf Club ACSP Resource Committee had three goals:

1) To insure that activities on the club

property have a positive environmental impact.

2) To improve the wildlife habitat on the club property

3) To educate and inform the membership regarding the program.

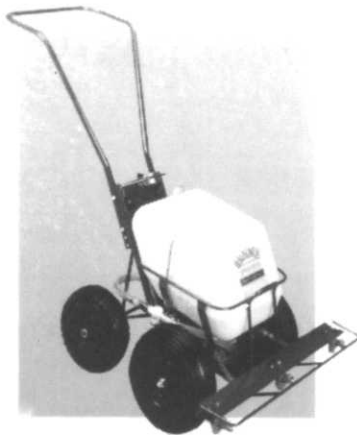
Have they accomplished these goals? "We are pleased with the progress we've made since joining the program. Perhaps objectives is a better term than goals, since as long as we continue participation in the program, the goals will never be reached because there is always a new idea or project which would have a positive effect on each of the three stated

goals."

The accompanying chart looks back at the past five years and identifies the focus of the Resource Committee.

"I have enjoyed the educational experience and personal contacts developed from our participation in the program, and the opportunity I have had to share this information with our members. I am very pleased to be part of a proactive program which is providing a positive response to allegations of environmental harm due to golf courses, allegations based purely on speculation rather than fact," said Mr. Yarrington.

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# STEWARDSHIP

	1992 Establishing A Plan (Environmental Planning)	1993 Implementation	1994 Certification	1995 Continuation	1996 Staying on Track
<b>Environmental Planning</b>	* Joined the ACSP * Formed Resource Committee	*Continual update of plan and regular meetings with committee members	* Writing certification requests	*Site visit by Jean Mckay, Audubon Society of New York	* Master landscape plan developed
<b>Wildlife and Habitat Management</b>	*Surveyed out of play areas, made recommendations on native plantings and nestbox sites, * Reviewed initial aquatic plantings * Surveyed existing wildlife food sources and ideas for increasing them	* Installed several wood duck boxes * Installed Osprey platform * Started converting out of play areas using native plants * Started program of removing exotic plant material and replacing with natives	* Ecological Restoration is goal for year, * Removed more than 30 Melaleuca trees and replaced with native material, *Addition of more nestboxes	* One acre naturalization project in small cabbage palm hammock, * Removed more exotics (haveremoved 100 in three years, 50 more to go), Replacing with sable palms, red maples and pines	* On-going exotic removal and replacement, * Planting Cord Grass and aquatics, * Trimmed dead pine tree to create snag for habitat
<b>Water Quality Management</b>	* Evaluated enlargement of buffers	*Continued aquatic plantings, Lakes are cleaner than ever before and membership is favorable to more,* Increased number of wading birds due to aquatic plantings	*Continued aquatic plantings, Entire perimeter of largest lake planted, Goal: Continue aquatic plantings till all lakes and canals are planted	* Soil and water testing conducted twice a year	*Buffers, as recommended by USGA, around all water bodies, * Adhere to spray and fertilizer guidelines published for proximity of water
<b>IPM</b>	*Documented previous two years chemical usage and set reduction goals, * Established details of current IPM program, * Met with Dr. Kim Erusha, USGA, to discuss IPM practices	* Ongoing review of organics and biological controls	* Regular turf scouting and mapping of problem areas, * Increasing aerifications including deep drilling greens and tees, * Changing mowing heights for the different seasons, * Tissue and soil tests twice a year for fertilizer program	*Renovation/Reconstruction of maintenance facility, including closed loop wash stand forcleaning equipment and building proper storage areas for chemicals and fertilizers,* Have reduced pesticide and herbicide usage, spot spraying only of herbicides and no broadcast spray applications for mole crickets, * 40% fertilizer used on greens is organic	* Using parasitic nematodes for mole crickets, * Bio-insecticides (Bacillus Thuringiensis) used for webworms, cutworms, etc., * Thinning canopies and root pruning trees to help turf, * Increasing staff involvement in IPM by encouraging them to become certified pesticide applicators (currently have 4)
<b>Water Conservation</b>	*Evaluated current water usage and set goals for future reductions, * Full irrigation system review,checking for ways to modify system to reduce consumption	*Monitor progress of negotiations with City of Naples for re-use water, * Installing new control and heads for the irrigation system	*Pumps and controls related to effluent usage refurbished, *Remainder of irrigation system upgrading, *60% irrigation is reuse water, 25% deep well, and 15% storm water retention	*Increased use of effluent, * Installed automatic rain sensor to shut down irrigation in case of unexpected storm, *Modifications to bunkers will improve turf quality, *Sodded several tees with zoysiagrass, which requires less water and fertilization	* Re-design and installation of irrigation system (piping and heads), * Increased effluent usage to 90%, *Sodding another shady tee with zoysia
<b>Member/ Public Involvement</b>	*Established plan to educate membership about ACSP, * Started wildlife inventory, planto have members help identify and record species	*Plan to familiarize memberswith some of the more common birds and wildlife on property	* Participate annually in bird count	* On going member involvement/input through committee meetings	*Book on Florida birds placed on coffee table in clubhouse, * Sheet on Golf Bulletin Board in clubhouse where members can list special sightings of wildlife, ex. River otter spotted fishing in pond on #18 or bobcat and kitten playing on 4th hole

**Chart 1**

*Strategic plan at Hole-in-the-Wall*

*"I have enjoyed the educational experience and personal contacts developed from our participation in the program, and the opportunity I have had to share this information with our members. I am very pleased to be part of a proactive program which is providing a positive response to allegations of environmental harm due to golf courses, allegations based purely on speculation rather than fact."*

**- Fred Yarrington**

**ACSP Resource Committee Chairman**

*Conclusion: A Golf Course and Only A Golf Course? No, Hole-in-the-Wall Golf Club is much more than just a golf course. It is a place*

*where the members care about the land and practice good stewardship everyday. It is a place where wildlife can thrive and flourish. It is a place*

*where people and nature meet and co-exist. It is a peaceful place, where, yes, you will definitely want to take the time to stop and smell the flowers.*



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## RESOURCE COMMITTEE

**Robert W. Fischer**, Green Chairman

**Ronald W. Sanborn Jr.**, Golf Course Superintendent. Has major responsibilities in areas of IPM and water conservation.

**James Ware**, Member of Tree Committee. Has been active in Audubon Society activities in the Chicago area and Naples. Conducts numerous bird walks and plays a major role in the annual bird count conducted in the area.

**Mary Dearholt**, Former Chairman

of the Board of the Conservancy in Naples, Florida. Mrs. Dearholt has an active interest in the trees and plants on the golf course.

**Bruce Durkee**, Former member of the Board of the Conservancy and Secretary of the Hole-in-the-Wall Golf Club. Mr. Durkee has particular interest in restoring several out of play areas to a natural setting to provide cover and food for wildlife.

**Dyanne Singler**, Director of the Wildlife Rehabilitation Center at the Conservancy. Serves as

outside resource member and advises on all phases of the program.

**Hubert Howard**, Tree Committee Co-Chairman. Active in many local civic committees and projects. General interest in the entire program.

**William Harvey**, First Vice-President of the club with a special interest in the tree program.

**W. Newton Burdick, Jr.**, Member of the Board and Golf Committee.

## WILDLIFE INVENTORY

**Mammals:** bobcats, possums, river otters, fox squirrels, gray squirrels, raccoons, black bear, armadillos and red fox.

**Butterflies:** Sulphur, Florida White, Zebra, Orange-barred, Milkweed, Red Admirer and several different swallowtails.

**Reptiles/Amphibians:** Eastern Diamondback Rattlesnakes, Southern Black Racers, Florida Water Snakes, Water moccasins and a variety of Florida turtles and numerous alligators

**Birds:** Great Blue Heron, Moorhen, Anhinga, Morning Dove, Tri-colored Heron, Red bellied woodpecker, Northern Mockingbird, American Kestrel, European Starling, Northern

Cardinal, Blue Jay, Red Shouldered Hawk, Kildeer, Northern Flicker, Yellow Rumped Warbler, Ruby Throated, Hummingbird, Pileated Woodpecker, Pervla,

Blue Gray Gnat Catcher, Great Crested Flycatcher, Black & White Warbler, Solitary Vireo, White Ibis, Great Egret, Fish Crow, Red Start, Palm Warbler, Carolina Wren, Turkey Vulture, American Robin, Gray Catbird, Black whiskered vireo, Yellow throated Warbler, Boat-tailed Grackle, Common Grackle, American Goldfinch,

House Sparrow, Brown Pelican, Double-crested Cormorant, Great Egret, Snowy Egret, Gray

Phase Screech Owl, Great Blue Heron, Little Blue Heron, Cattle Egret, Green-backed Heron, Black-crowned Night Heron, Yellow-crowned Night-Heron, Wood Stork, Wood Duck, Hooded Merganser, Osprey, American Swallow-tailed Kite,

Bald Eagle, Sharp-shinned Hawk, Cooper's Hawk, Red-shouldered Hawk, Merlin, Wild Turkey, Ring-billed Gull, Morning Doves, Common Ground-Dove, Eastern Screech Owl, Barred Owl, Belted Kingfisher, Yellow-bellied Sapsucker, Downy Woodpecker, Purple Martin, Brown Creeper.

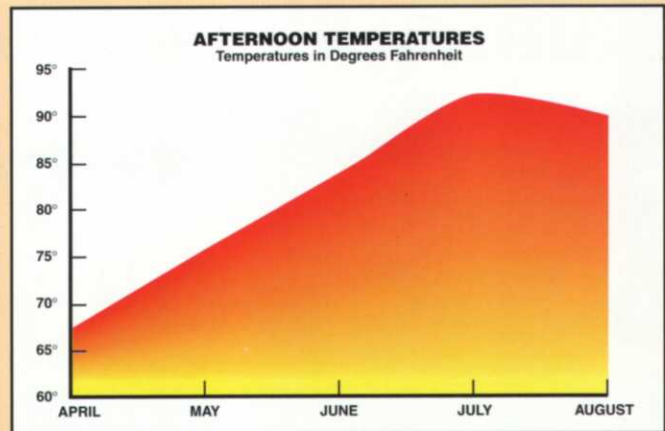
# SURVIVING THE SUMMER OF 1995

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**FEBRUARY 22, 1995**

Aerial infrared photography was used to determine the distribution and moisture content on the golf course. Fairways, tees, and surrounds display more uniformity and moisture content than greens.



**FEBRUARY THROUGH AUGUST**

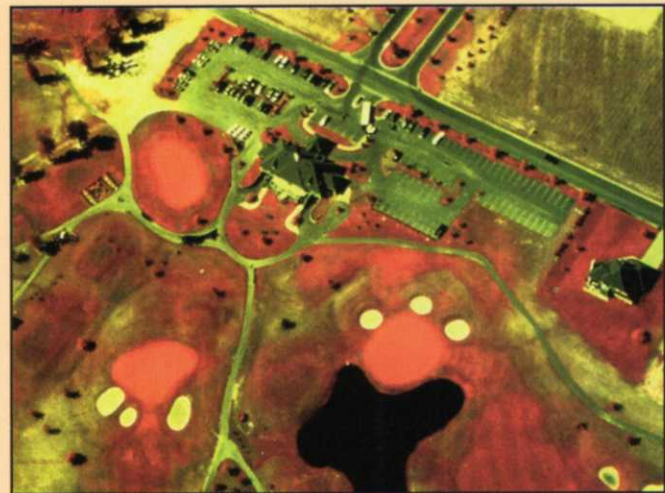
Environmental conditions worsened during the late spring through summer months. Temperatures became very hot and rainfall was more than 12 inches below average, resulting in extreme stress to turfgrass. In many areas of the golf course, turfgrass continued to weaken during this period.

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*Chuck Poole*

Chuck Poole, Golf Course Superintendent  
Nutters Crossing, Salisbury, MD



**AUGUST 22, 1995**

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# Audubon school program teacher training video filmed in Florida



*Rob Kloska (center), Superintendent of the Jupiter Island Club is filmed by a GCSAA staffer (far right) as the Treasure Coast Chapter helps Hobe Sound Elementary School students plant royal palm trees on campus.*



**T**he GCSAA was in Hobe Sound, Florida recently filming a teacher training video for the Audubon Cooperative Sanctuary Program for Schools. This video will be a part of registration packages sent to schools involved in this program and will be available by August. “The video will help teachers, students and parents across the country that are just starting out in the program and allow them the opportunity to see what has been done at other schools (in the program),” said Neil A. Gifford, Environmental Educator for Audubon International. There are currently more than 50 schools from New York to Florida to California involved in the program.

Lisa Wick, Media Relations & Video Services Coordinator with GCSAA spent two days in Florida interviewing principles, teachers, parents and students at Hobe Sound Elementary School about their involvement in the ACSP for

Schools. Hobe Sound Elementary School is the first school in the country to achieve certification in the Audubon School Program, and are currently certified in three out of four categories: Environmental Education, Waste Management, and Wildlife Habitat Enhancement. They are currently working on the fourth certification, Resource Conservation. Once this fourth certification is complete, they will become a fully certified Audubon Cooperative School Sanctuary.

While here, Lisa also interviewed several members of the Treasure Coast Golf Course Superintendents Association about the Blue Pearl Tournament and their involvement with the school program. The TCGCSA have raised \$18,000 in the last two years for the ACSP for Schools. This money is all spent locally through grant applications to schools in their region.

*Shelly Foy*



# EGCSA Spring Seminar Supports ACSP for Schools

The Everglades Golf Course Superintendents Association hosted their annual Spring Seminar on Friday, April 26 at the LaPlaya Resort in Naples. Over 90 people were in attendance for the full-day seminar.

During the day, presentations were made on a wide variety of golf course and turf management topics. The program was started off with Shelly Foy, USGA Green Section, giving an update on the Audubon Cooperative Sanctuary Program in Florida. Dr. Charles Peacock of North Carolina State University followed with a very good presentation on Best Management Practices. Then Darren Davis, superintendent at the Olde Florida Club in Naples, discussed Environmental Concerns for the Maintenance Facility. Dr. Pat Cobb from Auburn University finished out the morning session with

a very entertaining and informative talk on mole cricket control.

After lunch John Foy, USGA Green Section Director, gave a talk on Trends and Turf Tips for Florida Golf Courses, and then Paul Latshaw, superintendent at Congressional Country Club, told everyone about Preparing a Golf Course for a Major Tournament. Jan Beljan, Fazio Golf Course Design, wound up the day with an update on the Environmental Impact of Golf Courses.

This is the second year that the EGCSA have donated all proceeds from the Spring Seminar to the Audubon Cooperative Sanctuary Program for Schools. This year over \$3,000 will go to adopt schools into



Speakers for the EGCSA Spring Seminar were from left: John Foy, Shelly Foy, Paul Latshaw, Jan Beljan, Dr. Pat Cobb, Darren Davis and Dr. Charles Peacock.

the program and provide these schools with grant money for projects and supplies.

Shelly Foy

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# ACSP: Who, What, Why, Where, When and How



BY SHELLY FOY

These are some of the most common questions asked about the Audubon Cooperative Sanctuary Program for Golf Courses (ACSP). I thought they might help motivate some of you to get more involved.

In future issues of the *FLORIDA GREEN*, we will address other questions you may have about the Audubon Cooperative Sanctuary System. Send your questions to:

USGA Green Section  
P.O. Box 1087  
Hobe Sound, FL 33475  
Fax: 561-546-4653.

Question: My time is so limited. I want to get involved, I just can't seem to find the time. Any suggestions?

Answer: One of the first things you will do when you get involved with the ACSP is form a Resource Committee. This committee is just that, a resource for you to use. It can be made up of staff, golfers, board members, club officials, community persons such as Native Plant Society members, local Audubon members, a local utility company representative, a person from your solid waste authority, cooperative extension service or our local fish and wildlife agency just to name a few. Let your Resource Committee do their part by helping you out with anything from filling out the Resource Inventory, to initiating projects, locating sources, etc. No where in the program does it say that the golf course superintendent has to do all the work.

Another idea is to have your assistant superintendent or secretary handle the paperwork of the program. These are two people who are also fairly knowledgeable about the golf course and its operations. They could arrange meetings and schedule projects for you.

Don't be afraid to delegate portions of this program! The key to success is when you share the program with others. After all, one of the main things you want to do is to educate people about the environmental benefits of the golf course. If you keep it all to yourself, you have gained nothing and your success with this program will be limited, at best.

Question: My Green Committee already drives me crazy. I don't need more people knowing everything I do. Why is it necessary to have a Resource Committee?

Answer: Again, the Resource Committee can and should be a valuable asset to you by helping with projects, paperwork, resources, etc.. Remember, the whole point of the ACSP is to let others know what environmental stewards you are and how a well managed golf course can be a benefit to people and wildlife. By finding the right community representatives to be on your Resource Committee, they will learn for themselves the benefits of golf courses and will be more than willing to spread the news.

With board members on your Resource Committee, you will have the opportunity to educate them on various

aspects of your job. As their understanding of your job increases, you will gain valuable support for the projects and programs you want to implement on the golf course.

Question: My membership does not think the New York Audubon should be working on Florida golf courses. They can't seem to get past the New York in the name. What can I say to convince them this is a good program?

Answer: The Audubon staff recognizes that this is a concern for some people, so they have restructured their organization and the Audubon Cooperative Sanctuary Program now comes under Audubon International. Audubon International specializes in sustainable resource management.

You can also tell them that this program is sponsored by the United States Golf Association, and has been from the beginning. The ACSP is also supported by groups such as the GCSAA, ASGCA, GCBA, LPGA, PGA, etc.

Besides, I am sure your members do not think the *New York Times* is only a local newspaper either

Question: This ACSP package has been sitting on my desk for months. What is my first step in initiating this program?

Answer: The first thing you need to do after joining the program is to make sure you fill out the Resource Inventory. This form helps you describe your property, the projects you are already involved in, as well as helps identify areas where your

interests may be (birdfeeders, nestboxes, wildlife gardens, etc..)

After completing the Resource Inventory, you need to start thinking about putting together a Resource Committee of persons who will be able to help you with this program.

Next, the Environmental Planning Worksheet takes you through all of the certification categories and should be used as your "map" or "blueprint" of projects you will be working on. This worksheet should constantly be referred to, as it will help you gauge where you are in the program. Then, you should be ready to start implementing projects and applying for certification in the five other categories.

For additional suggestions, be sure to check previous issues of the *Florida Green!*

Question: My golf course is very private and does not want the public on-site. How can we fulfill the public/member involvement category?

Answer: The Audubon staff realizes

that some golf courses are concerned with their privacy. While some courses may have the ability to bring groups of people on-site for tours, this may be the last thing that other courses want.

There are, however, many opportunities to educate your own membership about environmental concerns on and around the golf course. With the average golf course being constructed on 120 - 150 acres, you have plenty of opportunity to enhance and preserve wildlife, conserve and protect water sources, implement IPM programs to minimize chemical and pest pressures as well as reach out to members, their families and guests to help them become more aware of what a benefit a well maintained golf course is to its surrounding environment.

The first thing you should do is let your members know about the ACSP. You can do this by writing an article for your club newsletter, or posting an announcement in the clubhouse or pro shop. You may be pleasantly surprised how

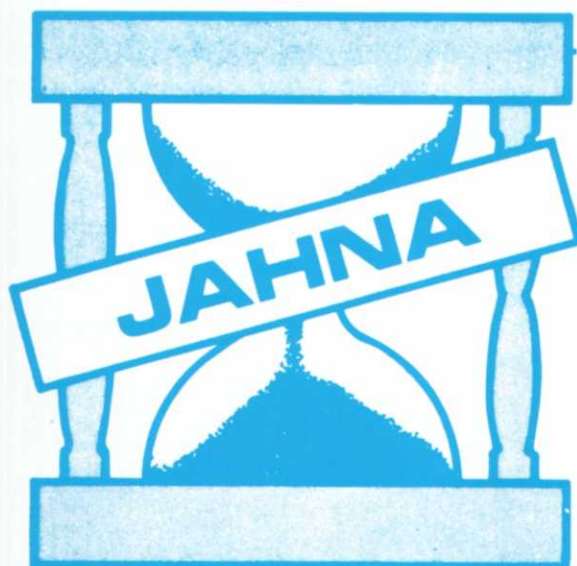
much interest you will receive. Ask for help with projects such as starting a wildlife inventory, building and monitoring nestboxes, or installing a butterfly garden. Your interested members will be glad to help you come up with a list of projects they would like to see implemented on the golf course.

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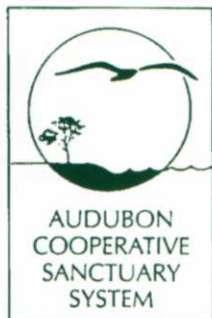
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Question: How many golf courses are registered in the Audubon Cooperative Sanctuary Program for Golf Courses (ACSP)?

Answer: As of the end of May, there are over 2160 golf courses who

are registered in the program nationwide. Of these, 72 are fully certified, and another 125 have achieved certification in one or more category.

In Florida, over 180 golf courses are currently registered in the program, 10 are fully certified, and another 15 have achieved certification in one or more category.

When you think about Florida having over 1100 golf courses, the number of ACSP members in Florida should be much higher than it is. Call Audubon International today at (518) 767-9051 and ask for membership information.

**Other project ideas are:**

- Host an Audubon day at your golf course and invite all members.
- Arrange for wildlife demonstrations (a good way to meet community groups who might be willing to serve on your Resource Committee), composting seminars, information that members might utilize in their backyards.
- Offer "kits" to members which might include a nestbox, birdfeeder, butterfly garden plants, etc...
- Have a designated area in your clubhouse or proshop where members can help with a wildlife inventory by listing species that they see while they are out on the course.
- Host mini-seminars or educational workshops for members. Speakers could be from local Audubon chapters, cooperative extensions, garden clubs. Make sure you encourage them to initiate some of the same programs in their own backyards as you are on the golf course.
- Perhaps start a reference library on Florida birds, wildlife, plants, etc. Make these references available for anyone who might want to borrow them.

**USGA announces first wildlife links grant**

The United States Golf Association (USGA) has awarded three grants totaling approximately \$100,000 to initiate Wildlife Links, golf's first comprehensive program to investigate its relationship with wildlife and its habitat.

The Wildlife Links program was established in early 1995 to fund research, management, and education projects needed to provide the game of golf with state-of-the-art information on wildlife management issues. The USGA will contribute \$100,000 annually for the next three years. The LPGA has also committed funds for this program.

The program is administered by the National Fish & Wildlife Foundation (NFWF) out of Washington, D.C. Congress established NFWF in 1984 as a non-profit organization dedicated to the conservation of natural resources — fish, wildlife and plants. Among its goals are species habitat protection, environmental education, public-policy development, natural resource management, habitat and ecosystem rehabilitation and restoration, and leadership training for conservation professionals. To date, NFWF

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has undertaken 1,205 projects in all 50 states, Puerto Rico, and 17 other countries. These activities have leveraged more than \$152 million of private funds for fish and wildlife protection.

The advisory committee for the Wildlife Links program includes: Dr. Peter Stangel, Director of the NFWF's Neotropical Migratory Bird Conservation Initiative chairs the committee. Other members are: Jim Felkel, of the U.S. Forest Service; Dr. Mike Lennartz, of the U.S. Forest Service; Dr. Dan Petit, of the U.S. Fish & Wildlife Service; Ron Dodson, President of Audubon International; and Jim Snow, National Director of the USGA Green Section.

The overall goal of the Wildlife Links program is to protect and enhance, through proper planning and management, the wildlife, fish and plant resources found on golf courses. The first three grants awarded by the USGA are to:

- The Colorado Bird Observatory, headquartered in Brighton, Colorado to

create a manual that will provide golf course architects and superintendents with practical information about how to enhance golf course habitat for bird species. The working title of the publication is Golf Courses and Bird Conservation: A Management Manual, and it will appear next spring.

- Donald F. Harker and Gary W. Libby, environmental researchers located in Frankfort, Kentucky, were awarded a grant to underwrite production of a publication with the tentative title Wetlands Management Manual for Golf

Courses that is expected to appear in early 1997. This illustrated booklet will contain narrative, drawings, case studies, and key restoration techniques to help golf course superintendents understand wetlands, and create programs to create, conserve and manage them.

- Audubon International, headquartered in Selkirk, New York, has received a grant to help computerize their substantial database of statistical informa-

tion about golf courses that has been gathered through their management over the past six years of the Audubon Cooperative Sanctuary Program for Golf Courses.

Golf courses, especially in more developed regions, hold great potential as hospitable areas for many species of animals and plants. The Wildlife Links Program represents golf's best mechanisms to examine these issues and develop appropriate strategies.

Complete information about these grants or the Wildlife Links Program may be obtained by contacting either:

**Dr. Peter Stangel**

National Fish and Wildlife Foundation  
1120 Connecticut Avenue N.W.  
Suite 900  
Washington, D.C.  
(202) 857-5676 or:

**Dr. Kimberly Erusha or Marty Parkes**

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*Last year, the Treasure Coast GCSA raised over \$8,000 which was used to adopt ten schools, provide books for each school library, and set up a \$5,000 grant fund for those schools to help pay for projects and supplies. On Saturday, May 4, 1996, they contributed another \$10,000.*

*“By funding environmental and ecological awareness programs in grade schools from Hobe Sound to Vero Beach, we can inform and educate not only the students, but also teachers, administrators, and parents.”*

**Dick Gray**  
TCGCSA President



*From left, Ed Davito, Dick Gray, President of the TCGCSA, John Sullivan, owner of Loblolly Pines and Jerry Snetler tee it up for the ASCP School Program.*

## **Blue Pearl Tournament largest single fundraiser for the Audubon Sanctuary Program for Schools**

**F**or the second year in a row, the Treasure Coast golf Course Superintendents Association have donated all funds from their annual Blue Pearl Charity Tournament to the ACSP for Schools.

Last year, they raised over \$8,000 which was used to adopt ten schools, provide books for each school library, and set up a \$5,000 grant fund for those schools to help pay for projects and supplies.

On Saturday, May 4, 1996, they contributed another \$10,000 to the ACSP School Program, for a two-year total of over \$18,000. Crystal Lake Elementary, in Stuart, Fla., has received the first grant

to build a nature trail. Other schools are in the process of applying for grants to work on such projects as constructing a slat house for native plant nursery, aquatic enhancement projects around water bodies, and butterfly gardens.

Dick Gray, president of the TCGCSA, says, “By funding environmental and ecological awareness programs in grade schools from Hobe Sound to Vero Beach, we can inform and educate not only the students, but also teachers, administrators, and parents. We can foster and nurture an age of children who grow up knowing the benefits of a healthy environment and the benefits golf courses offer to people, wildlife and the envi-



Mike Wallace of Palm City was the winner of the \$1,000 Golf Ball Drop raffle to raise money for the ASCP School Program.

ronment.”

The Blue Pearl Tournament is hosted by Loblolly Pines Golf Club in Hobe Sound. Owners John and Susan Sullivan are very gracious hosts for this annual event, and course superintendent Fred Hinkle and his staff work very hard to provide top quality conditioning and a very challenging course setup.

*“We can foster and nurture an age of children who grow up knowing the benefits of a healthy environment and the benefits golf courses offer to people, wildlife and the environment.”*

**Tournament winners this year were:**

**Low Gross First Place:**

Roy Kimberly, Coary Fisher, Mark Henderson, and Roy MacDonald

**Second Place:**

Mark Atherholt, Dave Oliver, Randy Vaughn, and Joe Hubbard

**Third Place:**

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# When the flag is down

BY JEFF BALL

*Golf Course Superintendent  
Panama Country Club*

The storms of life will bring out the best and the worst in a club.

The Panama Country Club is a 67-year-old Donald Ross course on St. Andrew Bay. The American flag flies daily, and when there is a death in the club, the flag flies at half staff in memory of the fallen member. When the chips are down, the members flock to each other's aid with Southern style hospitality that warms your heart. On the days following the passing of Hurricane Opal, the flag was down for our course. This is a story of member stewardship in the face of great adversity.

October 3, 1995 — Tuesday afternoon: We have watched Hurricane Opal float around in the gulf and churn itself up to a Class 3 storm. This is the third storm of the season and my maintenance staff had already cleaned up damage from two previous hurricanes. The look in their eyes was that of a fat Thanksgiving turkey. You know the look. You're going to

get it, and bad. We are spreading out maintenance equipment in various buildings on the course, along with enough fuel in cans to get us through the first week after the storm.

My wife packs our Jeep Cherokee and I finish tying down the last few things that all coastal superintendents know to do — pull all the flags, lower the level of our lakes, and move everything that we can under roof. Having lived in the aftermath of Hurricane Camille in Biloxi, Mississippi, the damage that storms of this magnitude can do is always in the back of my mind.

We are packed and ready to go north to high ground Tuesday night. I watch where the storm will make landfall. We went to bed and tried to sleep. It would not come, so I turned the Weather Channel on. The storm was a category 4/5 and the pressure was dropping. I grabbed the family and jumped in the Jeep. As I closed the garage door to our home, I wondered



*Hurricane Opal topples an ancient oak across the 8th tee at the Panama City CC.*



*The club is 67 years old and is filled with live oaks and longleaf pines... The FEMA estimates were over \$1 million in damage to the course, and months later we are still finding things that do not work properly.*

what we would have to come home to.

On the way out of town, I stopped by the club to make one final check. The crew was sent home with my prayers for their safety and with instructions to come back when the storm was over and their families were secure.

The storm made landfall about 6:00 p.m., and the old course took it right on the chin. The club is 67 years old and is filled with live oaks and longleaf pines. The damage to the Gulf Coast was extensive, and repair crews would be hard to

come by. The FEMA estimates were over \$1 million in damage to the course, and months later we are still finding things that do not work properly. To compound matters, my home was in a restricted area equipped with Florida National Guardsmen. We could not even go look and see the damage to our home. We were really frustrated and the work load was unbelievable.

The pump station had 3 feet of water in it, and we had several greens covered by the surge. We finally got the power on

and I was going to flush the greens with a deep well that was tied to our irrigation system. That ran for about one hour when a broken limb fell out of one of our large pine trees across the line. We only have 400 yards of power line above ground, and the limbs found it. Balls of fire raced toward the wells and destroyed any hopes of flushing our greens.

"I quit," I said to the Green Committee Chairman, Ted Buckley.

He laughed and said, "Tomorrow will be better."

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*Panama City CC Superintendent, Jeff Ball (left) and member, Gary Walsingham (right) admire the work of sculptor Ken Bauldree as he turns the old oak stump into a fox squirrel.*

I said, "It better be. It can't get any worse."

Just as the words came out of my mouth, Charles Commander drives up and asks, "When do you think the course will be open?"

I told him that it would take at least two weeks just for debris removal from the fairways and intermediate rough. He said that he wanted to play before he went to the Florida State University football game Saturday. (At this club they take two things very seriously—golf and football.) In the meantime, Buckley knew

that I could not go home and invited me to stay with his family. We dined that evening with candlelight and watched the Braves game on a battery-powered TV at a neighbor's house.

Mr. Commander had exercised his leadership ability by recruiting 75 members ready to work. We started the next morning at 7:00 a.m. and looked like Sherman on his march to the sea. Members arrived equipped with golf carts, rakes and sheets to haul off the limbs, pine needles and Spanish moss. We removed 200 tons of debris in a day and a

half. Our maintenance crew drove the tractors and utility vehicles while the members loaded. We cleaned the fairways and surrounds in eight hours. Ross Weaver, the General Manager, cooked up a great feast, and members insisted the crew join them at the club for barbecue.

The next morning we finished the green and tee surrounds. Then at noon we had a shotgun golf tournament. Two days after the storm, we were playing golf. We had saved ourselves from the defeat nature had handed us and decided to make lemonade with the lemons.

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*Member Work Day. Some of the 75 members who helped the maintenance crew remove 200 tons of debris in a day and a half. Two days after Hurricane Opal the Panama City CC was open for play.*

The story does not end at the tournament. We had a huge oak tree on the #8 tee that fell and drove the cart path 6 feet in the ground. The tree was so large that we could not even move the logs. I cut off all but 10 feet of the stump and then set the old stump back erect so we could repair the path and tee. I said in passing to

a member that I would like to have it carved into the likeness of a squirrel. The next thing I knew, a sculptor was carving the stump into a fox squirrel.

I know that this does not happen a lot in our profession, but I am very grateful to my membership for the support and help during those difficult times. Having

gone through Tropical Storm Alberto the summer before in Alabama and receiving very little support there, it means a lot. No, it means everything when the membership extends their hands. That is real stewardship at work.

By the way, wives are still looking for the missing fitted sheets.



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**Each one of you will be fired at some point in your career**

That's what one of my college instructors told me. I would like to explore this topic and provide information about what I did during my job search, although I did not lose a position as a superintendent. Everyone who enters this field is advised at some point that the decision to change superintendents can be as frequent and arbitrary as your decision to change toothpaste.

One morning, while I was in a weekly meeting with my supervisor, I was shown the reroutings section in our magazine. A number of lines had been highlighted. These lines were associated with area clubs who had recently changed superintendents. The question was posed to me,"

Can you tell me why these clubs fired their superintendents, then hired the guys who were working down the street? If this person wasn't good enough for this club, why is he good enough for that club?" I had no coherent answer for this question and still do not.

I believe communication is always the least common denominator in any human relationship that breaks down. Whether it is a marriage or an employment relationship, communication is the key. I personally take it upon myself to communicate my successes and challenges to my superiors. This statement may seem obvious to many, but to some I have known, I believe it is good advice.

As far as communication goes, I use a variety of tactics. With my subordinates, I conduct weekly meetings. They can come to me anytime, but I use this time to assure that they have the opportunity to communicate with me. I keep separate pages set aside in my Daytimer to list topics for discussion for each person I report to and each person who reports to me. If I find myself in an impromptu meeting with any of these people I can cover each item of concern without relying on memory.

Communication is not always good enough. I heard an interesting comment while attending

an excellent seminar conducted by Craig Schreiner, AGCA. A question was posed to Schriener that involved an impossible turf management situation and management's unwillingness to acknowledge or address the problem. His response involved something I believe he referred to as the Popeye Syndrome. "I can stand what I can stand 'til I can't stand no more!" It takes a lot to get a successful superintendent to this point. I believe most superintendents think they can grow grass in the closets of the clubhouse if they work hard enough, and many superintendents lose their positions while trying to make an impossible situation work.

So what do you do if you are fired? If your termination was not the result of any misconduct, you will likely qualify for a variety of state benefits. I took full advantage of a program that gave me access to the resources of the Private Industry Council of the Palm Beaches (the PIC). This program was an invaluable benefit to me. In addition to moral support they provided many other advantages. And keep in mind that these benefits are free to the beneficiary as long as they are related to your job search. They provided an office at my disposal where I could receive messages and facsimiles. I could send facsimiles and utilize the long distance phone service. I had access to computers with WordPerfect software. There were secretaries who would type resumes and letters. They offered counseling in resume preparation, job search techniques and interviewing. They would do mock interviews and record these on video tape so they could critique them with you later. Companies would come there to interview and conduct seminars. This was a place frequented by winners who were currently disconnected from a career. I intend to write another article featuring this program because I believe in what they are doing, and I am sure they are saving the taxpayers much more than they require in funds.

I was in a sales position when I was released. It was unfortunate but I was told it would happen to me eventually. It was the first time I had been unemployed since I was 15 years old. A top

**Off The WAHL**



Scott Wahlin, CGCS

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superintendent and man I respect very much called and asked for a meeting with me when he heard I was unemployed. This man had been released from a very well-known, prestigious club for no reason related to his performance and had landed another top job. He told me to use this as an opportunity to evaluate my life and goals and spend some time with my family. He said that he did not do this when he had the chance but wished he had. I couldn't do that then and probably wouldn't if this happened to me in the future.

I worked a normal work day at least five days a week. I was either at the PIC, in an interview or calling on superintendents from 7 a.m. to 5 p.m. I set many appointments to tour courses with superintendents on weekend mornings. I love my family, but I find it impossible to relax enough to enjoy them unless I am providing for them. I did take at least one day a week to devote to them, but that was my normal work pattern anyway. I could justify that in my mind. As far as evaluating my goals was concerned, that took me about two second. How long does it take to say, "Get a position I enjoy and bring home paychecks!" Long-range growth goals had to be put on the back burner in my case. I have four children who like to eat meat! This

superintendent's advice must be good because I heard it many times from people who specialize in reconnecting displaced workers.

I also became familiar with a man who taught me much more than he realizes. I intend to contact him to write an additional article on this topic. He convinced me that I could land an excellent job outside the golf industry for the money I needed without having to relocate. He is incredibly successful at getting motivated people back to work in jobs they enjoy, so the state hired him to work with people who had gotten certified at the PIC. We went through my previous experiences, and he pointed out how these skills could be related to other businesses. He said the top four hiring criteria do not involve education or references. They include: (1) Do they like you personally? (2) Do they trust you? (3) Are they confident you will produce? and (4) Do you seem like someone who is a pleasure to work with? In the short time that I was involved with his weekly seminars, I saw a number of people land positions utilizing their skills in completely different fields without having to relocate.

In my opinion, there is nothing like being a golf course superintendent. There is much stress associated with this position, though. I believe this is

evidenced by an informal survey I did of superintendents while I was in sales. I asked them if they would recommend this career to their children. I am sorry to say that many said they would not.

If you intend to remain a practicing superintendent and you are out of work, the likelihood is that you will have to relocate. There are only so many courses, and they cannot come to you. A parent does not relish the thought of going to his family and saying, "Guess what? We're going to move again! Now go tell your friends goodbye."

The golf course superintendent's responsibilities are so diverse that a person who succeeds in this position for a period of time can do just about anything in business. It is unfortunate, but we do tend to lose our positions without any reason associated with it. If this happens to you it is important to realize how many others have experienced the same thing and that you, too, will land on your feet. I learned much while I was unemployed. I know firsthand how horrifying this can be. If there is anyone who is disconnected or very unhappy in their present position would like to talk, please contact me. I am not an expert, but I believe I can help.

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## Where is everyone else?

The last issue of *The Florida Green* contained a great article by Dr. Monica Elliott decrying the treatment of golf course superintendents by golfers who expect flawless playing conditions regardless of

weather conditions. Dr. Elliott's words were heartfelt and dead on the mark, demonstrating again why she is so highly regarded by superintendents over and above her substantial contributions as a turf researcher.

Predictably, though sad to say, you and the other members of the choir read Dr. Elliott's article in your own association magazine,

rather than in *Golf Digest* where she had submitted it and hoped it would appear. It just seems to be a fact of life that most golfers aren't at all interested in the problems of maintaining high quality turf or helping support our research efforts, while at the same time expecting a perfect golf course each and every time they tee it up. As golf course superintendents, we should be "mad as hell and not take it anymore," to quote from the movie "Network" by way of Monica's article.

Other than the USGA, what other non-superintendent, golf-related organization recognizes the need for turf research and backs it up financially? Why is it that superintendents are the ones sitting on panels debating green zealots about golf's environmental impact; dealing with high-handed regulatory agents; and spending hour after hour planning, organizing, and staging fund-raising events for turf research? Where are the golf pros, the general managers, the developers, the architects, the builders, the owners, but especially, those who play golf almost every day of their lives and profess a love for the game?

I can well understand the disinterest in the day-to-day mechanics of the golf course

maintenance operation — this is what we superintendents are trained and educated for and paid as professionals to do — but I don't understand why we stand virtually alone as the defenders of the game. Yes, we are the ones calling the shots in the facet of the club's operations most likely to have potentially adverse environmental consequences, but we are doing so under the direction of — and for the benefit of — our golfing members.

Answer honestly — how many of you would be doing things the same way if you had total job security and complete authority to manage the golf course as you saw fit? Would there be less water and fewer fertilizers and pesticides applied? My guess is yes, but who gets fired if the golf course does not meet members' expectations, and who is held accountable for regulatory compliance and/or environmental transgressions?

This has been the greatest mystery to me in my 23 years as a golf course superintendent: Why is it that golfers are willing to spend \$250 or more on the latest hot driver or \$40 for a dozen Titleist Tour balatas, but wouldn't spend \$10 a year for turf research if their life depended on it? Though some of them may be rocket scientists, I don't think you have to be one to figure out that escalating maintenance costs over and above the rate of inflation cause higher membership dues and greens fees, and that basic research into the development of new grasses, methods, and products could help reverse this calamitous trend. Think about it. In Florida, Tifdwarf and Tifton 419 are still the predominant grasses found on golf course greens and fairways, and they were released for use over 35 years ago when 1/4 inch was the normal cutting height on greens.

At this point, you're probably saying, "So what's your point, Mark? I've heard all this before and you're still preaching to the choir."

I actually have three points.

I think it's time to resurrect the idea of a

## Mark My Words



Mark Jarrell, CGCS  
Assistant Editor



“golf tax” in Florida, to finally get golfers to contribute their fair share of the research and development burden necessary to provide the environmentally sound and high quality golf course that they demand. By my estimation, a 5-cent-per-round golf tax would generate about \$2.5 million in this state.

Point two, we need to continue growing and stay unified as an industry so our words carry the clout reflective of this state’s largest agribusiness. Our 1992 survey indicated that turfgrass is a \$7.3 billion industry; by IFAS’ numbers, the rest of Florida’s agriculture is worth about \$5.5 billion. Golf and turf is growing while many agricultural commodities are in

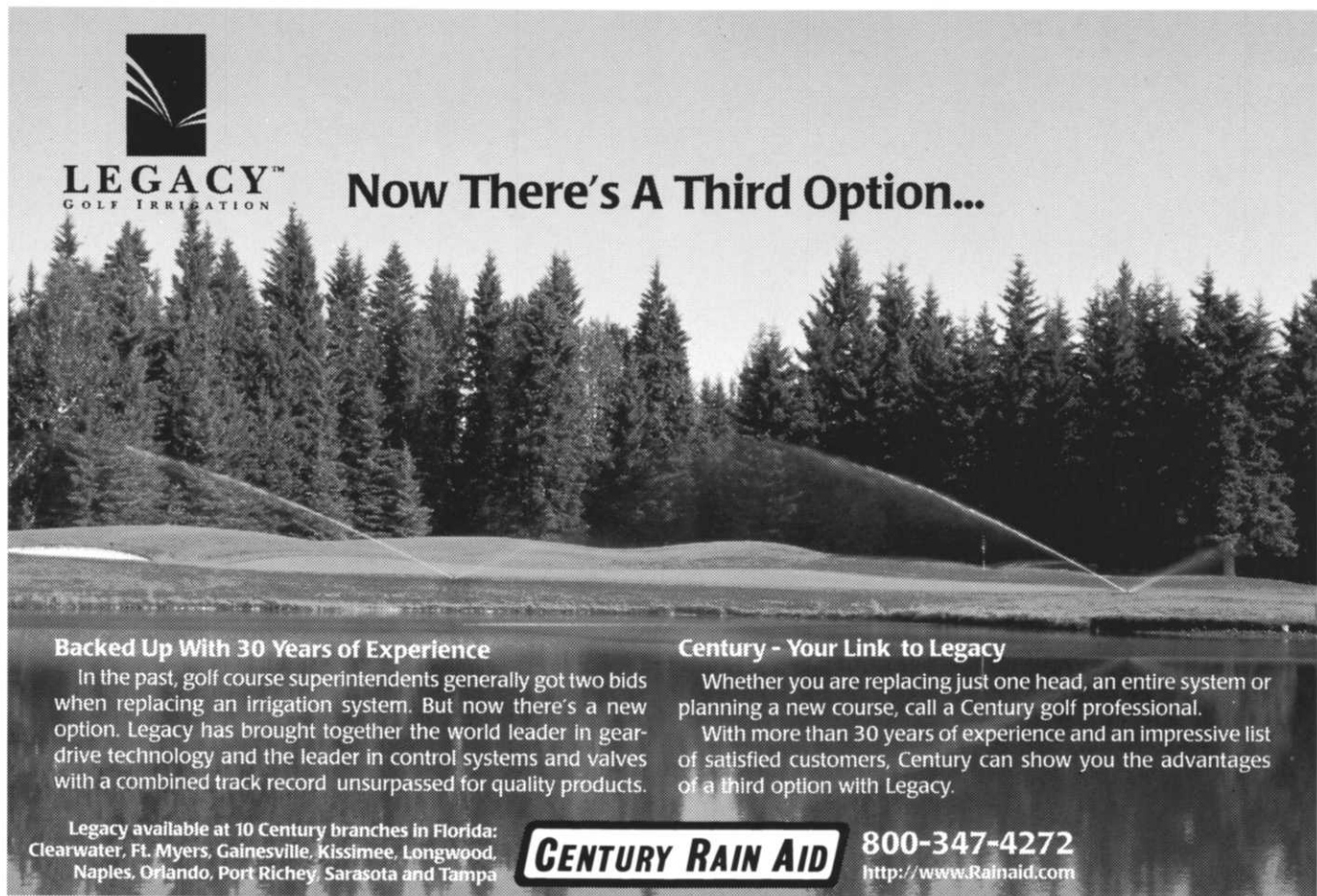
decline or on the ropes due to NAFTA and other factors. The FTGA and the FGCSA need to continue working closely together to solve our problems. Those who disagree with certain decisions or policies should get involved and work through these associations rather than against them.

The third point is that we need to work more closely with IFAS to improve the University of Florida’s turf program, and with the state legislature to secure proper funding. We have already started working with IFAS, and we are making headway. Vice President Dr. Jim Davidson has already agreed to increase turf faculty by three new positions: we will be getting a weed specialist, an

entomologist, a pathologist, and two breeders dedicated half time to turf — that’s a lot more than simply hiring a replacement for the loss of Dr. Bert McCarty.

There should be no adversarial stances between the different segments of the golf and turf industry and/or their customers. There are plenty of very real and very dedicated adversaries to golf, and those of us who care about golf should work together to support the necessary research to provide the high quality that golfers want and the environmentally friendly golf courses that we all want.

Superintendents are doing their part. Where is everyone else?



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It's been one of those superintendent merry-go-round years already. My rolodex and directory are getting worn out with mark-throughs and erasures keeping track

of new addresses for some guys. Scott Wahlin was right in his editorial "Each One of You Will Be Fired at Some Point in Your Career!" Are you ready for this?

Maybe superintendents take on the aura of a new car to some clubs: new, fast, sleek, high performance, king-of-the-road feel. Then you get a little mileage on you. Body gets a couple of dings. Maybe have a flat tire or two. Need a new battery.

Pretty soon the club's thinking, trade-in time! Instead of getting to know the car, they start all over again with a strange new one. There are no guarantees. The next one might be an assembly line lemon. Oh well, trade that one in too!

I was talking to a superintendent last month who relayed the story of his termination over having thin areas on three or four greens. When he tried to explain push-up greens drainage problems, shade and air circulation stresses on greens built in low woody pockets the owner said, "Those are excuses!" And the superintendent said, "I'm not giving you excuses. I'm giving you the facts!"

Well, two superintendents later the club rebuilt the greens, installed fans and cut down some trees. Guess what? They had better greens! The superintendent ran into the owner sometime later and that owner did have the grit to tell him he was right after all! Bittersweet victory I guess! I

wonder if it crossed the owner's mind that he put several men and their families through hell and then out of work for all the wrong reasons?

I'd be a fool to defend every superintendent that ever got the axe. Some of them probably earned the distinction. But, far too many seem to be the result of some over inflated ego on a power trip or a scapegoat for someone else's faulty decision making. It keeps happening again and again so, it is always refreshing to see those clubs and superintendents that have developed a long term, mature, professional working relationship. One where both sides truly understand the ying and yang of growing golf turf under exacting conditions.

Golf course superintendents are expected to operate with less margin for error than any other sports related professional I can think of. Give me a baseball player that gets a hit 40% of the time and I'll show you a guy baseball cards and shoe commercials are made of. Give me a superintendent with 90% of his course perfect and I'll show you a possible candidate for the unemployment line.

Sometimes it isn't about turf, at least not the green growing kind. Sometimes it's politics, diplomacy and image. That's why everyone keeps talking about communications and people skills all the time. It's important to be able say, "We have a problem and here's how we can solve it!" before someone else says, "You have a problem! Clear out your desk!"

I don't know of any way to ever stop the merry-go-round. It's destined to be one of the rides you take in life. The only thing I'd say is, "As long as you're on the merry-go-round, be sure and go for the brass ring!"

**Now you see him; now you don't!**

**Green Side Up**



Joel D. Jackson, CGCS Editor

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VALUE IN PRODUCTS, SUPPORT SECOND TO NONE, AND INNOVATIVE BUSINESS PHILOSOPHIES HAVE EARNED US A LOYAL FOLLOWING OF THE FINEST CUSTOMERS IN THE INDUSTRY.

SO IF YOU'RE GOING DOWN THE ROAD, FEELING BAD ABOUT YOUR EQUIPMENT SUPPLIER...

CALL US. WE'LL BE THERE FOR YOU.

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