



# The Florida Green

Summer 1999

Number 6 North  
Killearn Country Club  
Tallahassee  
Photo by Daniel Zelazek.



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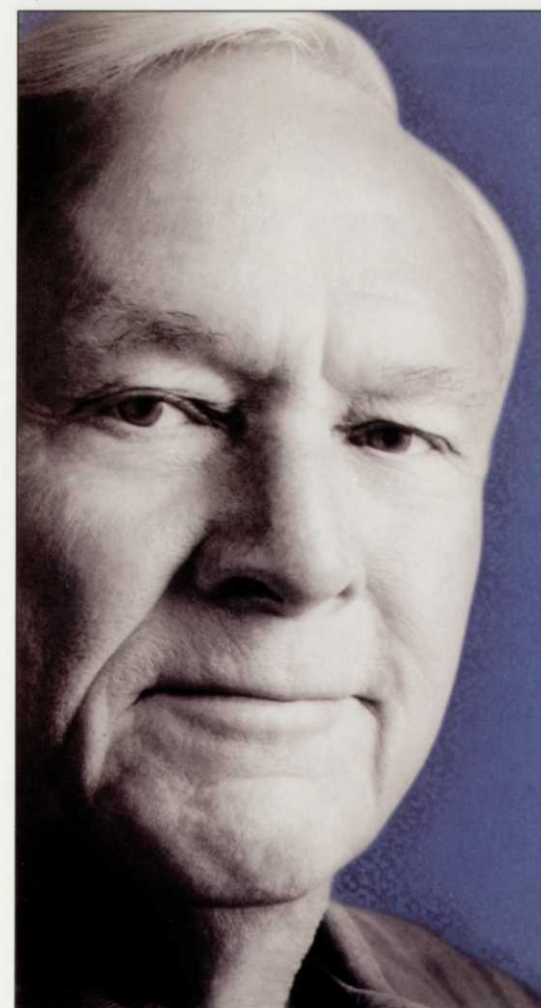
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No. 6 North  
Killearn C.C.  
Tallahassee

**SUMMER  
1999**

**FOREWORDS** OPPORTUNITY KNOCKING ..... 4  
President Mike Perham discusses the opportunity to raise research money through the blue tag rebate program by two seed companies.

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The USGA Regional Conferences drew large crowds, as did the South Florida Expo. The Envirotron Classic set another one-day fund-raising record and the Poa Annua is becoming an FGCSA family reunion.

**COVER STORY** GROWING OF THE GREEN ..... 24  
Killearn CC and Inn in Tallahassee, a 27-hole private/resort course that meanders through rolling piney woods, is the inaugural "cover course" for the Coastal Plains Chapter. It also marks the first cover appearance of a golf course managed by a woman.

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**OFFICIAL BUSINESS** EPA, PESTICIDE REVIEW, SWFWMD ..... 60  
A Florida Congressman has introduced a bill that will place the burden of proof for regulatory necessity on the EPA. Florida Pesticide Review Council deals with six matters affecting the turf industry. SWFWMD targets nitrate pollution.

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The Environmental Principles for Golf are designed to educate and inform the public and relevant decision makers about environmental responsibility.

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Spend a year with Matt Taylor as he grows in and maintains greens planted to Champion ultradwarf bermudagrass.

About the use of trade names: The use of trade names in this magazine is solely for the purpose of providing specific information and does not imply endorsement of the products named nor discrimination against similar unnamed products. It is the responsibility of the user to determine that product use is consistent with the directions on the label.



# The Florida Green

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## Opportunity is Knocking

### PRESIDENT'S MESSAGE



Michael Perham,  
CGCS  
President  
FGCSA

**U**ndoubtedly by now all of our members are aware of the “blue tag” seed rebate program being sponsored by Turf-Seed, Inc. and Tee-2-Green and administered by the GCSAA. This program is an excellent opportunity to raise funds for both and the state and national organization as well.

While this information may have reached us too late for this year, after purchasing decisions were already made, keep it in mind for the following years. The program runs for a five-year period. If you did not directly purchase

one of these company's products, be sure to check the seed tag of what you did purchase for the proper prefixes. Their product may still be part of your blend this year and still qualifies for the the rebate.

I am not one to advocate the support of any vendor over another. However, our association like many others is desperately seeking new sources of

income to support our programs without having to raise membership dues. The day may not be far off when organizations such as ours and other local and regional groups stop relying on commercial vendors to support our various programs. Any vendor group that proposes such a program as the “blue tag” rebate warrants our consideration and support.

This is my last message as your president. It has been an honor to have served in this capacity for the last year. I would like to thank the officers and board of directors for their services this year, and my utmost appreciation to Marie and Joel for their efforts.

As my final thought, I would implore you the membership to become more involved! Apathy appears to be our greatest obstacle to overcome. This situation prevails at all levels. Have you been to a local meeting lately? Recognize anyone? No matter what your situation – young or old, our association can best be measured by the sum of our members input. The vast majority right now are silent. Stand up and shout! Your association needs to hear from you.



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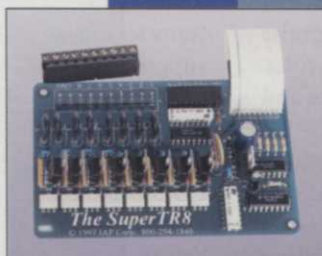
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# Chapter Fundraisers Bring Big Bucks

## USGA Road Show Draws Crowds to Fla.

**A**pril brought another twin billing of USGA Regional Conferences to Florida. Once again the successful sites of Orlando and West Palm Beach were used to reach to most amount of people. There were approximately 100 superintendents, golf professionals and club managers in attendance at each location.

It was good to see Roger Harvie of the USGA Southeast Region office hosting the meetings. Roger recently underwent an angioplasty to correct a blocked artery that was causing him some problems. Glad to see him back

in action and as feisty and fun as ever.

The conferences as usual were well stocked with expert speakers on a variety of topics to make everyone more aware of the science of golf course conditioning:

Dr. John Cisar, UF - Nitrate Leaching

Chris Hartwiger, USGA - Preparing for a Tournament

John Foy, USGA - Putting Green Construction

Matt Nelson, USGA - Understanding Organic Products

Better ways to manage golf course impacts on the environment were discussed by:

Joellen Zeh, Audubon International - Environmental Planning

Tom Stone, NaturGolf - Identifying and Enhancing Ecosystems

Education in turf research grants and employment law issues were presented by:

Dr. Kimberly Erusha, USGA - USGA Grant Programs

Stuart Charlson, West Coast Employers Association - Looking to the Future

Television personality Peter Kessler of the Golf Channel was the kickoff speaker with the offbeat topic, "The Man Who Almost Killed Arnie and Jack!" Kessler has one of those great voices like John Facenda who used to narrate all those NFL highlight films. Kessler told of two incidents involving Arnie and Jack where he was instrumental in almost doing bodily harm to both of them. Quite by accident of course.

Kessler went on to praise those present for their roles in providing the service and preparation of golf's facilities and playing fields.

Attendees to these USGA conferences earn professional continuing education credits as class A golf professionals and certified golf course superintendents.

### RIDGE INVITATIONAL

## Fund-Raiser Players Test Nike Tour Sunday Pin Spots

**M**arch First did come in like a lion at the Grasslands C. C. in Lakeland. A full field of contestants teed it up on a breezy Monday morning to battle par and balky golf swings in the name of turf research



Southpaw golfer Buck Buckner, superintendent of the Isleworth C.C. took low gross honors at the 8th Annual Ridge Invitational played at the Grasslands C.C. in Lakeland. Photo by Joel Jackson.

and to help the Ridge GCSA support local charities.

Golfers were treated or tortured by the pin locations served up by host superintendent Roy Wilshire, CGCS. Roy used the Sunday locations from the Nike tour event, The Lakeland Classic, which he had hosted only a few weeks before. The secret to winning on the windswept course was to play it backwards, and that's what lefthanded superintendent Buck Buckner from the Isleworth County Club in Windermere did.

For the scoring challenged, there was the 100-foot-plus putting contest and Ray Cuzzzone and Roy Wilshire had their stock cars on display. One lucky raffle winner got a couple of laps around the parking lot with Ray and a day at the Richard Petty Race Experi-



Peter Kessler (left) of the Golf Channel was billed as "The Man Who Almost Killed Arnie and Jack" at the USGA Regional Conference held in Orlando this past April. Roger Harvie of the USGA's Southeastern Regional office hosted the event. Photo by Joel Jackson.





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ence at Disney World. David Pursell of Pursell Industries was on hand and donated one of his coveted golf legend drawings of Ken Venturi to the post-game raffle.

The crowd enjoyed a barbecue dinner of ribs and chicken to complete the day. Good fun, good food, good cause thanks to the efforts of Tom Barnett, Jeff Brown, Steve Ciardullo, Ray Cuzzone, Mark Hopkins, Bob Wagner and host Roy Wilshire.

#### SOUTH FLORIDA TURF EXPO

### **S. Florida Expo Attendance Hits Record Level**

Following on the heels of the GCSAA Conference and Show in February, South Florida President Jim Walker was visibly concerned about the turnout and support for the 12th Annual Turf Expo in Fort Lauderdale.

The event scheduled for March 11 was running behind on commitments and registrations as the days

...funds from this event comprise almost 50 percent of the support for the turf technician assigned to maintain the FGCSA's Otto Schmeisser Research Green located at the University of Florida's IFAS Research and Education Center.



*Hats off to these gentlemen for putting on another outstanding South Florida Turf Expo. From left: Jim Walker, president of the South Florida GCSA and superintendent of the Palmetto G.C. in Miami; Marcus Prevatte, former turf technician at the Research and Education Center – now assistant superintendent at Indian Creek C.C.; and Dr. John Cisar, IFAS turf coordinator for the University of Florida. Photo by Joel Jackson.*

dwindled down to the deadline. Walker's fears evaporated as 11th-hour calls from vendors came in and walk-in registrations pushed the attendance to new levels.

Walker was rightly concerned since funds from this event comprise almost 50 percent of the support for the turf technician assigned to maintain the FGCSA's Otto Schmeisser Research Green located at the University of Florida's IFAS Research and Education Center. In addition to keeping the research green and turf plots maintained to "real world" conditions, the technician also assists the turf faculty with their various research projects. The remaining portion of the technician's salary comes from annual donations from the other 10 FGCSA chapters, who are encouraged to include this as a line item expense in their yearly budget plans. At the Poa Annua Classic in

Naples this past May, Walker proudly presented a check for \$24,000 to the FGCSA for the Research Green Fund.

Highlight of this year's Expo had to be the blue ribbon panel of ultradwarf

#### **Highlight of this year's Expo had to be the blue ribbon panel of ultradwarf experts:**

**Dr. Al Dudeck, U. of Fla. (Floradwarf); Barry Koonsman, Thomas Brothers Turf (MiniVerde); Mike Brown, Coastal Turf (Champion); Dr. Wayne Hanna, USDA (TifEagle); Rob Kloska, Jupiter Island Club (UTEP Trials); and Matt Fancher, Tiburon C.C. (Floradwarf).**

experts: Dr. Al Dudeck, U. of Fla. (Floradwarf); Barry Koonsman, Thomas Brothers Turf (MiniVerde); Mike Brown, Coastal Turf (Champion); Dr. Wayne Hanna, USDA (TifEagle); Rob Kloska, Jupiter Island Club (UTEP Trials); and Matt Fancher, Tiburon C.C. (Floradwarf). Following their presentation, attendees visited a supplier showcase in the courtyard, toured the turf plots and watched equipment demonstrations.

A special thank-you to Ray Carruthers and Emerald Isle Turf for donating the food and beverages, which helped tremendously in making the event a financial success. This year's Expo was also the curtain call for 10-year veteran technician, Marcus Prevatte, who accepted an assistant superintendent's position with Joe Pantaleo at the Indian Creek C. C. on North Miami Beach. Two months after the Expo, a South Florida GCSA search committee hired former superintendent Gary Pederson to be the new technician.

#### SUNCOAST SCRAMBLE

### **Comedy Team Puts FUN in SGCSA Fund-Raiser**

On March 23 the 1999 Suncoast Scramble celebrated 17 years of fund-raising by the Suncoast GCSA chapter. This year another full field flocked to the unique format of pairing a superintendent with his golf professional, a club official or influential member and a supplier.



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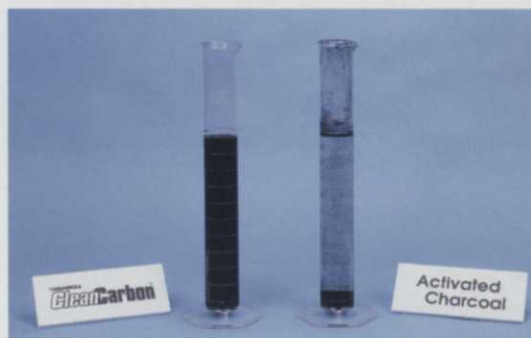
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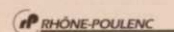


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Suncoast GCSA President Troy Smith (left) presents FGCSA Director of Communications, Joel Jackson with a check for \$2,500 for the FGCSA Research Fund at the 1999 Suncoast Scramble held at the Misty Creek C.C. in Sarasota. Photo by Tom Hilferty.

This format provides a great venue for all facets of the superintendent's business world to get together for some fun and informal education and networking.

The day's events included an abbreviated Suncoast Chapter business meeting, a guest speaker, a catered lunch, comedy entertainment with a golf flavor by Les McCurdy and his band of comics, a golf tournament and all capped off with an awards reception at the end of the day. The proceeds from this local event provide funds to support local charities and junior golf programs in the Bradenton-Sarasota area. In addition, the Suncoast Chapter presented a check for \$2,500 for the FGCSA Research Fund.

#### NORTH FLA'S RICHARDS MEMORIAL

### Melnyk Praises Superintendents as Professionals

Every April the Jacksonville area golf commu-

nity rallies to honor the memory of two leaders in our business, Mike Richards and Alan MacCurrach. Richards was a sales manager for Tresca Industries and MacCurrach was an agronomist for the PGA Tour. The event was started seven years ago in Mike's memory and was expanded to include homage to Alan after his passing three years ago.

This year three Lake City Community College students were awarded scholarships. Wayne Durkee, a third-year student in the golf course operations program was awarded the \$3,000 Mike Richards Scholarship. Durkee also holds a bachelor's degree in business administration from Flagler College. Durkee credits his association with superintendents Frank Sabarro (Sawgrass CC) and Tom List (Ocean City G&YC) as having a tremendous influence on



Steve Melnyk, second from left, presented Alan MacCurrach and Mike Richards scholarships to Kyle Tapp, David Younger and Matt Durkee all Lake City Golf Operations students. Melnyk, an ABC Sports golf announcer and former PGA Tour player, was also the keynote speaker at the Mike Richards Memorial Scholarship Tournament at the Jacksonville Golf & Country Club. Photo by Joel Jackson

his commitment to the industry and respect for the environment.

David Younger and Kyle Tapp were each presented with a \$1,500 Alan MacCurrach scholarship. Younger is also a third-year student in the LCCC golf course operation program and currently holds a 3.8 GPA.

Younger cites gaining valuable experience in his chosen field under the tutelage of North Florida superintendents David Lowe (The Plantation CC) and David Amirault (Deerwood CC).

Tapp will graduate from Lake City's turf equipment managers program in May. Building on a strong mechanical background, he plans to seek a career in golf course operations where he can apply his collective experience. Tapp garnered high praise from his instructors in the TEM program.

The event was held at the Jacksonville Golf and Country Club under the guidance of host superintendent Greg Tharp and

golf professional Chip Dutton. The course and service were exemplary. The kudos for the planning and implementation of the event go to the outstanding committee of Kim Shine, Jim Shine, Tom Brennan, Clayton Estes, Kelli Bohn, Steve Richards and Paul Hamrick.

Keynote speaker was former Gator golfer and PGA Tour star Steve Melnyk. Melnyk is currently an announcer for ABC Sports and also is active in golf course design. Melnyk had high praise for the superintendent profession in general and special kinship with the Jacksonville area association. He helped present the scholarships after the tournament and urged the recipients to stay in the area if possible and to be active in the profession.

#### SEVEN RIVERS ENVIROTRON CLASSIC

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This event just keeps getting bigger and



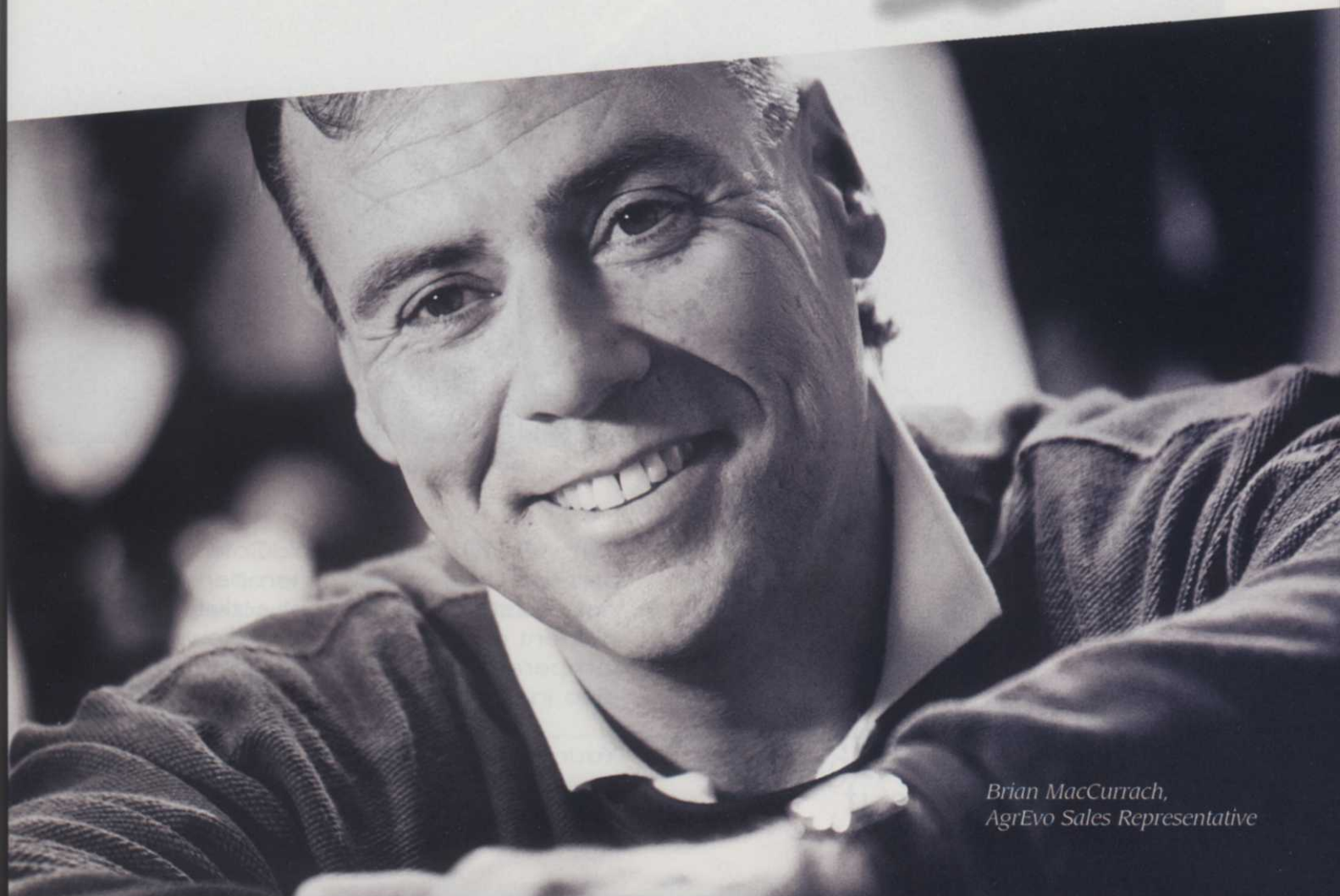
*A problem as common as goosegrass shouldn't promote a panic. But it did.*



Here in Florida, a goosegrass escape isn't exactly front page news. But when a super who I've dealt with for years called me in something close to panic because his goosegrass treatment was leaving ugly brown spots, it got my attention. Seems the problem was caused by an old fashioned herbicide that he'd used for years. I suggested he change to an Illoxan® Herbicide postemergent program to control goosegrass right through the year. He liked the idea, incorporating it into his IPM program. Even sent me a goose call in the mail, just in case the problem should ever reoccur. Fortunately, it hasn't.



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The Seven Rivers GCSA, in conjunction with the Florida Turfgrass Association, awarded \$72,000 from Envirotron Classic proceeds to the University of Florida for a three-year light/shade study on putting greens. On hand for the presentation are, from left, Scott Wahlin, CGCS, president of the FTGA; Mike Swinson, CGCS, president of the Seven Rivers GCSA and Dr. Grady Miller of UF. Photo by Joel Jackson.



Dr. Jerry Sartain, also received a grant of \$26,000 from the Envirotron Classic Research fund to continue his turf fertility studies at the University of Florida. Scott Wahlin, CGCS, left and Mike Swinson, CGCS, make the presentation on behalf of the FTGA and the Seven Rivers GCSA. Photo by Joel Jackson.

## From UF President John Lombardi...

I want to thank you for your efforts on behalf of the University of Florida earlier this year. I am humbled and inspired by your support throughout the difficult period we experienced. Your hard work during this time is a tribute to the love many share for the university, and you have my sincere gratitude.

As you are all aware, turfgrass plays an important and vital role in the state of Florida and the nation. Turfgrass is among the top environmental resources we have today, from providing a safe and comfortable setting for athletics, as well as a lush, attractive carpet for home lawns, business, and educational institutions.

The Envirotron Research Laboratory at the University of Florida provides scientists with a first-rate facility through which to study the entire turfgrass system and develop new growth and and maintenance procedures. At the University of Florida we feel that 1999 will bring positive results from new and innovative ideas and concepts as well as a positive movement forward with administration changes. Your support of the Envirotron Golf Classic will help perpetuate this progress. We greatly appreciate your effort for this tournament.

I am as ever committed to the University of Florida, and look forward with excitement to the future.

All of us at the University appreciate your generous investment of time and effort. The University of Florida is fortunate to count you as a friend and supporter.

Sincerely yours,  
John Lombardi

by golf construction company, Barbaron, Inc., the Champion Sponsor, the 1999 event topped the \$50,000 mark in proceeds.

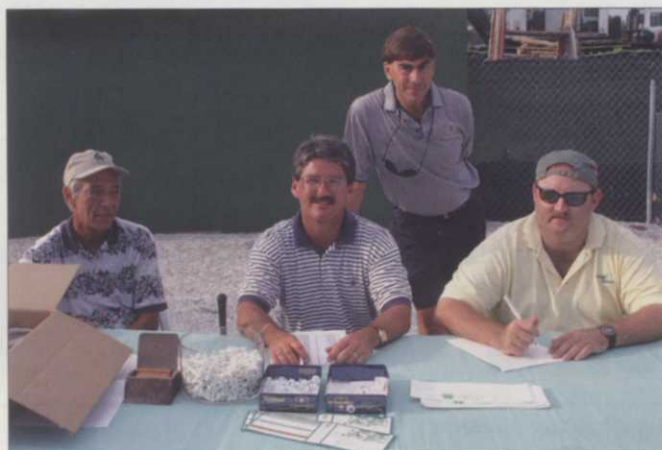
The Seven Rivers Chapter goes about their daily work quietly and each year throws a blockbuster event that pumps much needed funding into the University of Florida. The hard work that goes into this event and the superb results did not go unrecognized by Dr. John Lombardi, president of the University of

Florida. A letter from Lombardi to the Seven Rivers Chapter Lombardi accompanies this article

## 29TH ANNUAL POA ANNUA CLASSIC

### Naples Gathering Becoming FGCSA Family Reunion

Over the years we have watched the Naples Beach Club grow and renovate as we make our way each May to Naples for business, golf, education, networking and



No event just happens! Key members of this year's successful Poa Annuu Classic weekend included (l-r): Odell Spainhour, Jim Osburn, Steve Durand and Mike Smith. Photo by Joel Jackson.



# All in a Day's Work.

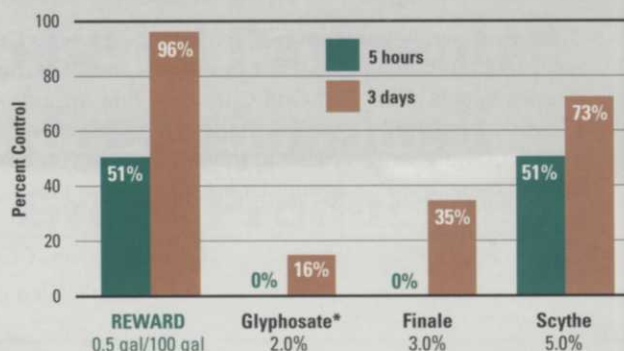


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## History of the Poa Annua

The Everglades Chapter of the Florida Golf Course Superintendents Association was two years old when it invited the the South Florida Chapter over to Marco Island for a casual get-together. It was 1970 and Stan Clark along with a few other superintendents decided to set up a golf match after the meeting. Things went pretty well and the following year Dwight Wilson suggested that a bucket of Poa annua be given as a gag prize to the winners of the golf match. Since then "Poa" has been associated with the annual meeting.

Around 1972, Doc Anderson offered to supply a meal at the meeting. He left nothing out. Roast pig, sweet corn, ribs, and almost anything anyone wanted was served up barbecue style. In 1975 the get-together was officially dubbed the Poa Annua Golf Classic. As it continued to grow, other chapters were invited and the location of the event was changed to other courses like Lehigh, Mirror Lakes, and Oxbow. It was while the tournament was at Mirror Lakes that the FGCSA Board of Directors decided to have one of it's biannual business meetings at the Poa Annua Classic.

The event was held for several years at the Oxbow GC until 1980, when a permanent home was found at the Naples Beach Hotel and Golf Club. The Poa Annua Classic has matured into one of the most enjoyable events of the year. We wish to thank all those you have helped make the Poa Annua Golf Classic what it is today.

*Bob Sanderson, CGCS  
Heron's Glen GC*

some family fun and relaxation. Many of the staff are old friends. This year was no exception as a large construction project is under way to modernize the pro shop and Brassy restaurant into a conference center, spa and new restaurant and golf and tennis facilities.

But the beachside amenities were in full swing and well utilized as the FGCSA spring board meeting, education seminar, and traditional Poa Annua Luau, complete with roasted pig took place on Friday, May 14th. In the Board

meeting, officers and directors met Don Benham of the Florida Turfgrass Association as Don outlined his grass roots fundraising plan. The board also spent the better part of the meeting working on the details for the 1999-2000 budget to be voted on at the Annual Meeting in August.

After lunch, Dr. Rick Brandenburg, entomologist from North Carolina State University spoke on "Effective Mole Cricket Management." Dr. Brandenburg said, "The key to effective



*After all the strokes were counted, Mark Hopkins (left) had the fewest and won Low Gross honors. Presenting Mark with his trophy clock and gift certificate are (l-r) Steve Durand, Everglades GCSA Treasurer and Jim Osburn Poa Tournament Chairman. Photo by Joel Jackson.*



*Dr. Rick Brandenburg of North Carolina State University gave a two hour presentation on the latest Mole Cricket research and management techniques during the FGCSA Educational Seminar at the 1999 Poa Annua Classic. Photo by Joel Jackson.*



*Professor of Distinction, Dr. George Snyder of the University of Florida rounded out the four hour educational program with a presentation on the value of chemical and physical soil testing and their relevancy in managing turfgrass. Photo by Joel Jackson.*



# 1999

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Team honors were captured by the host Everglades Chapter. Members of the winning team with the four lowest net scores were (l-r): David Fry, Rick Tatum, Roy Bates and standing in for Scott Hamm is Jim Osburn, Tournament Chairman. Photo by Joel Jackson.

management of any pest is knowledge of their biology and ecology. Recent research has provided a clearer picture of the mole cricket and its ability to escape our best control efforts."

Brandenburg went on to discuss the various products and control programs that

are being used.

Dr. George Snyder, a professor of soil and water science from the University of Florida gave a presentation on "The Value of Soil Testing." Snyder who has been with the university since 1967 is most currently working on developing and

conducting research to investigate nutritional problems of warm season grasses and to examine the fate of pesticides in turfgrass soils. Dr. Snyder's presentation included several laboratory demonstrations of various soil-testing techniques.

On Saturday the Poa Annuum Golf Tournament was played on the newly renovated and partially remodeled Naples Beach Hotel's golf course. The first, ninth and tenth holes have been redesigned to accommodate the new clubhouse and conference center expansion. Perennial contender and past champion Mark Hopkins once again put together a sub-par round to take the individual championship. Mark has now earned the first spot on the 2000 FGCSA golf team to compete in

Alabama next February at the GCSAA Golf Championship. Team honors went to the host Everglades Chapter. With the most golfers to choose from, they found four low netters to capture the trophy and keep the bucket of *Poa annua* at home. Team members were the unlikely quartet of Roy Bates, David Fry, Scott Hamm and Rick Tatum. These guys have been playing too much golf!

It was great to see the families of some of the regulars. Kids growing up. Now driving the family to the Poa. And even better was to meet some new faces and see how much they enjoyed this weekend get away. I had to smile as they all said, "I didn't how great this was. We will definitely be back next year." And that how the traditions live on. Long live the Poa!

JOEL JACKSON, CGCS



FGCSA President Mike Perham, CGCS, left, accepts a check for \$24,000 from South Florida Chapter President Jim Walker at the Spring Board meeting in Naples, FL. The funds came from the 1999 South Florida Turf Expo and will be used to maintain the FGCSA Research Green in Fort Lauderdale. Photo by Joel Jackson.



FGCSA President Mike Perham, CGCS, left, presents Paul Crawford with an award recognizing his five years of service as the business manager of the Florida Green. Paul is stepping down and Mike will assume his duties to help oversee the operation of the magazine. Photo by Joel Jackson.



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TEAM <sup>c</sup>	■	●	●	●	●	●	NR	NR
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## COVER STORY



Number 2 North  
Par 3, 200 yards  
Photo by Daniel Zelazek.





*Killlearn Country Club*

# The Growing of the Green

BY JOEL D. JACKSON, CGCS

**W**ith a name like Killlearn and a shamrock for a logo, it's not hard to conjure visions of the rolling green fields of Ireland when picturing what the Killlearn Country Club in Tallahassee must look like. The clubhouse, pro shop and 39-room inn painted white and trimmed in green sit on a hilltop northwest of downtown in a forest of oaks and





*The rolling elevation changes of Killearn are evident on #3 South, a downhill, 178 yard, par 3 hole. Photo by Daniel Zelazek.*

pinetrees. The fairways of the 27-hole complex meander up and down the rolling hills bordered by brick homes reminiscent of Georgia and the Carolinas.

Killearn Country Club is a Bill Amick creation and the original 18 holes were opened for play in 1967. The private membership course was the site of the PGA Tour's Tallahassee Open for 20 years from 1969 to 1989. Then the LPGA Tour came to town for their Sprint/Centel Classic from 1990 to 1993. Killearn Golf and Country Club was the original home for touring professional Bert Yancey early in his career, and in 1971 Lee Trevino won the Tallahassee Open and from there went on to win the U. S. Open, the Canadian Open and the British Open. In 1981 an additional nine holes, the North Course, was added to the original South and East nines.

In 1972 the Golf Course Superinten-

## Coastal Plains Chapter

**History:** Serving the greater Tallahassee and Big Bend area of the state, the Coastal Plains Chapter was founded in 1988 by Robert Giehls, John Fake, Scott Price and Jeff Vietmier. Originally called the Big Bend Chapter, the name was changed to Coastal Plains in 1995.

**Activities:** Besides holding traditional monthly meetings, the chapter hosts the annual Coastal Plains Classic Turfgrass Research Tournament. The proceeds from this event are used to support the University of Florida's Research and Education Center in Milton, FL and research at the Coastal Plains Station in Tifton, GA.

**Mission:** Golf courses in the Florida panhandle are few in number widely scattered over a large area. The Coastal Plains Chapter is doing its part to help organize and educate the superintendents in the north central part of the state. Current officers are:

**President & External VP:** Doug Abbuhl, Seminole GC

**Vice President:** Mike Echols, Summerbrooke GC

**Secretary/Treasurer:** Jeff Heggen, Hilaman Park GC



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dents Association of America held its National Golf Championship at Killearn when the conference was being held in Cincinnati, a mere 725 miles north on I-75. The headquarters for the tournament was the new Holiday Inn hotel downtown and room rates were \$12 - \$17 for single or double occupancy. Ah, the good old days! Today, Killearn Country Club is part of American Golf Corporation's Private Club Division.

In selecting Killearn to represent the chapter, Coastal Plains Chapter made Geri Buchheit the first female superintendent to have her course featured as the cover story for the *Florida Green*.



Superintendent Geri Buchheit checks one of the drift fence and trap locations on the course. The traps are part of a wildlife inventory project to identify small mammals, reptiles and invertebrates that currently inhabit the golf course. Photo by Joel Jackson.

## Gerl Buchheit

**Originally from:** St. Louis, Missouri.

**Education:** 1987 - B.S. in Agronomy with specialization in Turfgrass Management from Texas A&M University.

**Employment history:** 1992 to present, Killearn Country Club, Tallahassee; 1990 - 1992, assistant superintendent, Colonial C.C., Ft. Worth, TX; 1987 - 1990, assistant superintendent, Stonebriar C.C., Frisco, TX; Co-op program internships at Cherry Hills C.C., Denver, CO; Emerald Bay G.C., Tyler, TX and Oakmont C.C., Denton, TX.

**Professional affiliations/Honors:** Member of: GCSAA, FTGA and Coastal Plains Chapter of the Florida GCSA. Service: 1996 - President Coastal Plains Chapter; 1996-98 Coastal Plains Classic Golf Tournament Committee; 1996-98 Leon County Advisory Committee for Master Wildlife Conservationist Program; 1997 - American Golf's Highest Rated Regional Superintendent determined by membership survey.

**People who have influenced your life and career:** Dan Hedrick, superintendent at Creve Coeur GC, the first course I worked on. He made it fun. Jim Mills, my advisor at Texas A&M. I got some great job experience because he encouraged me to go through the Co-op program. My parents got me a great education and instilled a strong work ethic. My dad also encouraged my change of my field of study from Industrial Technology to pursue a turf degree. Floyd Robinson, our mechanic for his support and guidance. Floyd has been in the business for 30 years and was a former superintendent at Killearn.

**How did you get into the business:** I applied for a job with the City of Creve Coeur in St. Louis through the CETA program. They hired quite a few kids to work in the Streets and Parks Dept. and one or two for the golf course. The first day I happened to be standing next to Don Hedrick, the superintendent, and he asked me if I was afraid of a handmower? I said, "No!" He asked me if I wanted to work on the golf course and I said, "Sure!" I continued to work for Don the next three summers after the program ended.

**Memorable moments:** I have been fortunate to work on courses hosting professional golf events eight times: 2-Colonial/SW Bell Invitationals; 1985 PGA Championship at Cherry Hills; 1991 US Women's Open at Colonial; 2-LPGA Skins Games and the Murata Senior PGA Reunion at Stonebriar; and the 1993 LPGA Sprint Classic at Killearn.

**Hobbies and interests:** Saltwater fishing, soccer and cooking.





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No. 7 North, a 170-yard par 3 seen from behind the forward tees. Photo by Daniel Zelazek.

Geri is one of only about 53 women superintendents who are members of the GCSAA.

Buccheit said she feels no special pressure to prove herself as she assumed her first superintendent's position.

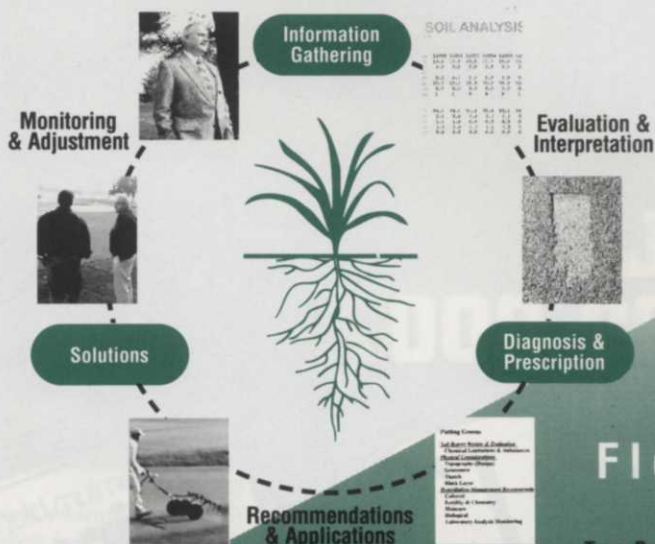
"They hired me evidently feeling I was the best qualified for the job, and I guess I've been doing something right since then," She said. "I've always had the philosophy that the results of hard work always speaks for itself."

Evidently the members agree as she earned a 1997 American Golf Highest Rated Regional Superintendent award based on a membership survey.

Buchheit has been at Killearn's helm for the past seven years. She hosted the last LPGA event at Killearn in 1993, but she is no stranger to preparing a golf course for professional tour events. Buchheit has two Southwest Bell-Colonial Invitationals and a U.S. Women's Open as an assistant superintendent at the Colonial C. C. in Ft. Worth, Texas.

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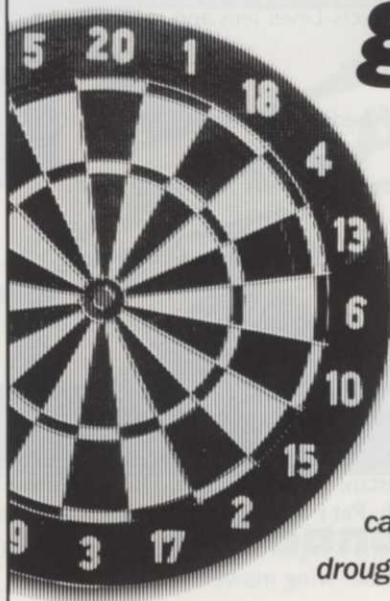






The pond that flanks the uphill 506 yard 5th hole on the South nine is part of the stormwater retention system for the residential area around the course. Photo by Daniel Zelazek.

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*Killearn Country Club Maintenance Staff including Jake, the Labrador retriever, head of the Canadian Goose Patrol. Photo by Joel Jackson.*

## Killearn C.C. & Inn

**Location:** Tallahassee

**Ownership:** American Golf Corporation

**Playing policy:** Private Membership and 39 room inn.

**27 holes-North, South and East nines:** Original South/East Course - Par 72 at 6432 yards. Course Rating: 71.2 Slope 120. North/East Course - Par 72 at 6360 yards. Course Rating: 70.9 Slope: 121. North/South Course - Par 72 at 6328 yards. Course Rating: 70.7 Slope: 133.

**Designed by:** Bill Amick.

**Opened:** South/East 18 holes in 1967. North nine opened in 1981.

**Management:** Ed Hoover, club manager; Ray Barr, Jr., head golf professional; Betty Edwards, advisory board president; Kevin Selsor, American Golf regional superintendent; and Rick Barnett, American Golf director of maintenance for East Coast private clubs.

**Major Renovations/Projects:** 1998-Asphalt paths replaced with concrete paths; 1998-Rebuilt greens and tees on North Course; 1995 - OSMAC irrigation control system installed. Planned future projects-Level tees and reconstruct bunkers on South and East courses.

**Acreage under maintenance:** 157 acres of turf.

**Greens:** 4 Acres. Average size: 6,000 sq. ft. Turf type: Tifdwarf. HOC 5/32". Overseeding: Poa trivialis @ 12#/1000 sq. ft. Green speed goals: 8.0.

**Tees:** 3 acres. Turf type: Tifway 419. HOC = 1/2". Overseeding: PhD perennial ryegrass blend = 35#/1000 sq. ft.

**Fairways:** 60 acres. HOC = 1/2". Overseeding: None.

**Roughs:** 90 acres. Turf Type: 60 acres irrigated Tifway 419 and 30 acres non-irrigated bahia/centipede. HOC = 1 1/2". Overseeding: None.

**Waterways/Lakes/Ponds:** 6.5 Acres. All are storm water retention ponds with most of them receiving a great deal of runoff from property surrounding the golf course.

**Irrigation:** Source- two wells. Equipment-South/East = 75 hp Worthington vertical turbine pump. North = 25 and 50 hp centrifugal pumps. Single-row fairway coverage on South/East nines. Primarily Toro 630, 670, 690, 730 and 750 heads.

**Staff:** Total of 16 including supt. includes 2 part time employees. Shane Bass, assistant superintendent; Floyd Robinson, mechanic; Dean Richards, pest control tech; Richard Stephens, irrigation tech; Pat Porter, landscape maintenance.

**Maintenance equipment:** Greens: 2 Jacobsen Greens Kings. Tees: 2 Jacobsen Greens Kings. Fairways: 2 Jacobsen 3810, 5-gang mowers. Roughs: 1 Jacobsen 3810, 5-gang mower and a Woods 9204 bat-wing mower.

**Cultural programs:** Greens - aerify 2x/year w/Greencare Coremaster 12. Tees - aerify 1x/year with Coremaster 12 and 1x/year with Ryan Renovaire. Fairways - Core aerify 2x/year with Ryan Renovaire.

**Wildlife inventory:** Killearn currently involved in a wildlife study with Leon County Extension Office in a Master Wildlife Conservation Program to determine how to enhance wildlife populations on the golf course.



As an assistant at Stonebriar C. C. in Frisco, Texas, she helped prepare for two LPGA Skins Games in 1990 and '91 and one Murata PGA Seniors Reunion event. Don January was the director of golf while Geri was at Stonebriar. And then there was the 1985 PGA Championship at Cherry Hills in Denver when she was a student doing an internship.

Buchheit said, "One of my best tournament experiences was when Nancy Lopez went out of her way to introduce herself to me during an event. She didn't have to do that and I really didn't expect it. It showed what kind of person she is and what class she has.

"And probably the worst tournament experience I ever had was at the Colonial Invitational one year. Everything was looking real good on the bentgrass greens, then we got 4 inches of rain and the temperatures soared just before the event. The heat and the humidity and the tournament conditions took their toll. We were spreading ice on the greens at night



*Mature pines and oaks frame the No. 2 South green giving the course a distinctive parkland appearance. Photo by Daniel Zelazek.*



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Killlearn's Pro Shop and practice greens. The 39-room inn is to the right and behind the flagpoles. Photo by Daniel Zelazek.

## Overseeding at Killlearn

### PREPARATION

Apply split applications of Ronstar XL. The first in August and the second 60 days later using drop spreaders to outline the putting surfaces, collars and tees. Then making two more passes outside of that with rotary spreaders to control *Poa annua* and walked-off seeds. When the bermuda is at least 80% dormant, usually around December, we spray the fairways with Princep for *Poa annua* and volunteer ryegrass control. In 1998 we used Barricade with good results.

### SEEDING

We only overseed tees and greens. We apply all of our seed at one time. With 27 holes to work with, we close nine holes at a time usually in late October and apply 12 lbs of Sabre *Poa trivialis* to the greens using rotary spreaders going in several directions until the correct rate is achieved. Using the same method we apply 35 lbs of PhD perennial ryegrass to the tees.

### GROW-IN

After the seed is down. We apply a light top dressing and do not mow for almost 10 days to allow the seed to germinate undisturbed. Since the turf growth is slowing down, the playability is not affected as much as you would think. It is a trade-off that the members make to assure a good catch of seed. We will syringe off the dew in the mornings during this 10-day waiting period. We apply a low rate of granular starter fertilizer after germination and then switch to soluble fertilizers for most of the season.

### TRANSITION

We don't do anything heroic or really aggressive to aid transition. Our main procedure is to begin dragging the greens with a heavy brush made by our mechanic to help groom out the grass slowly as the temperatures warm up. By late March or the first week in April we are usually ready to aerify and verticut.

trying to lower the soil temperatures. The conditions were beyond control."

But now the Texas A&M graduate is in control of the 150-acre Killlearn layout that offers plenty of challenges to any turf manager. The 32-year-old course has a single-row irrigation system and lots of mature trees in the roughs.

"The unirrigated and shady areas in the roughs require special attention," she notes. "We had to hand-water a lot of new sod along the new cart paths we put in last summer because they weren't covered in many cases by the existing heads.

"On a regular basis we also add topsoil to many of the thin areas under the trees and plant shade tolerant grasses. Then we rope off the area and monitor the cart traffic until the grass gets established."

Buccheit is tackling another project designed to enhance the wildlife on the golf course.

"Over the years with all the homes along the golf course, the understory vegetation has been cleared out. I began looking at the Audubon Cooperative Sanctuary Program to learn ways we could improve the habitat. About this time I happened to meet Will Sheftall with the Leon County Extension Office. He was looking for a way to develop a Master Wildlife Conservation program and so we joined forces.

"We submitted a letter describing our goals and the community volunteer involvement to secure a grant for the project. We have local environmentalists and Audubon members working with us on the project. We are focusing on four primary areas: aquatics; bird populations and small mammal, reptile and insect populations; and exotic plants. All the areas under consideration are being mapped using GPS and can be overlain onto topographic and soils maps.

"We are conducting monthly bird counts and we have set up drift fences with traps in several locations to catch, count and release the critters so we can monitor their numbers and movements. In out-of-play areas we will be planting beneficial native species for food and cover and creating brush piles to provide habitat for small animals."



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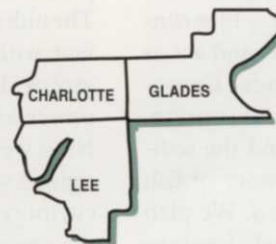
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*The first rays of sunrise begin to highlight the green on #1 South. Note the unusual purple martin house right of the hole. Photo by Daniel Zelazek.*

"The aquatics will be a major part of the effort. All of the water hazards on the golf course are designed to capture runoff from the neighborhoods and act as stormwater retention ponds. Consequently, the water quality is of concern. We are testing the water and the sediments and taking an inventory of fish and invertebrate populations. We plan to aquascape the ponds to help improve the filtration of the runoff and to restock with fish and minnows as needed."

Buccheit said a few of the environmentalists approached the project with some skepticism, but that it has been a good experience as everyone learned about each other's commitment and concerns.

This past year was not easy for Buccheit and her crew as they grew in the newly renovated greens on the North Course and had to deal with the cart path project as well.

"It took some getting used too, man-

aging the new greens on one nine compared to the older greens on the other 18. The older greens are so much more resilient with their thatch layer. The new greens didn't have much recuperative power when they had to deal with the El Nino weather effects last year. In hindsight, I would have raised the height of cut more to relieve some of that stress on the new greens."

Projects always put an extra strain on routine operations, so Buccheit was extremely proud of her crew as they dug in and got the job done.

"I think the most important thing a superintendent can do is to talk with the employees and let them know on a personal basis you appreciate them and their work. There is a suggestion from the crew to try a "zone" or "team" concept in work assignments. We're discussing trying it out. It can be a good pride and morale builder for those who want to take ownership and responsibility for

their work product."

Buccheit says she also makes sure to talk to someone in the pro shop at least once a day to make sure every one is on the same page with course conditions and the status of play for the day.

"Communications is the key! We have so much to do, so many bases to cover, we can get stretched pretty thin sometimes. We need to know what's going on, and they need to know what we're doing for the best product for our members."

Buccheit salutes the members for their recognition of the efforts being made to improve course conditions.

"The members have just been great when it comes to our projects and programs. They know we are working hard to provide them with a better golf course and they let us get on with our business. New members also drive changes, and as the competition for the golf market in Tallahassee changes, so will we!"



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# Unfair Criticism, Lost Loyalty and Rumors

## Dealing with Unwarranted Criticism

**Y**ou've just been chewed out by your boss about something that is inaccurate, unfair, and absolutely not your fault. You feel your blood pressure rise. You don't know whether to tell him what you really think of him or punch him in the nose (which is probably the same thing).

You resist, knowing that, at this point in your life, it's imperative to remain employed, but the feelings persist. You're mad! What can you do?

First, you can take a deep breath and remind yourself that your reaction is healthy. And the fact that you did not punch this guy is also healthy. No one likes to be criticized, especially if it is unwarranted. In the future, try these four steps.

One, ask questions. Even if you believe the criticism is unfair, delay reacting defensively. State that you're confused and that you'd like to understand it better. Then ask questions about specifics. "Exactly what I have done that is making you angry?"

Second, actively listen. This involves listening with more than your ears. It also involves paraphrasing. "Let me make sure I understand. You felt angry when I told one of the members our plans for

### How to Lower Your Blood Pressure

1. Ask questions.
2. Listen with more than your ears.
3. Agree with some part of the criticism.
4. Accept your critic's right to feel any way he wants.

renovating the course? Is that it?"

Third, agree with some part of the criticism. You might offer, "I can understand how that made you angry." Notice that this is not agreeing with the criticism merely shows some degree of empathy. It is very disarming.

Fourth, accept his right to feel any way he wants; even if he is wrong... and do not take it personally.

If you follow these steps, you will find that your blood pressure remains low and the criticizer is left believing that you have heard and understood him.

BREE A HAYES, PH.D.

*Dr. Hayes is an organizational consultant and counseling psychologist. She has been on the GCSAA faculty for the past 12 years. She is president of The Hayes Group, an Athens, GA-based international consulting firm. Credit: The Carolinas Green*

## Loyalty Between Employers, Workers at an All-Time Low

**Loyalty:** faithful adherence to a person, government, cause, duty, etc.—  
Webster's New World Dictionary Third Edition.

**G**one are the days when employee/employer relationships are built on long-term trust and loyalty. There are occasional exceptions, like the following story I read several years ago. A

textile factory in Massachusetts was gutted by fire a month prior to Christmas.

Several hundred employees were suddenly put out of work, or so they thought. The employees feared that the owner (a single owner, not a corporation) would choose not to rebuild the company, but just close the doors and collect the insurance settlement.

Twenty-four hours following the fire, owner Aaron Feuerstein surprised employees by announcing that he planned to rebuild the plant immediately, with portions to be completed and operational in 90 days or less. Not only did Mr. Feuerstein begin immediate reconstruction of the plant, but he continued paying all 1,400 employees their full wages for the next 30 days and provided 90 days of insurance coverage.

He said it was his responsibility to both his employees and the community because they had been responsible for his success. This gentleman showed a tremendous amount of loyalty to his employees, above and beyond what many current-day entrepreneurs and corporations consider reasonable.

Except in rare cases like this, loyalty between employees and employers is at an all-time low. Employees no longer are rewarded with job security for many years of faithful service. Salary increases and benefits that coincide with long-term employment are often looked upon nega-

**Editor's Note:** I came across a couple of articles recently that seem to reach out and grab me, because I hear the topics everywhere I go. Our jobs can be quite stressful at times, and learning how to deal with that stress can save your life or avoid serious illness. Read on and find out you're not alone out there and maybe you can find something in these articles to help your situation.

JJ

*Tenure and experience seem to mean little these days because there are many up-and-coming turf professionals willing to work countless hours for less pay.*

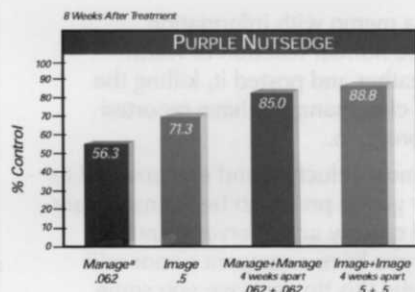


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tively by upper management.

Such rewards are considered too damaging to the bottom line. This attitude seems to be found throughout the entire business world. Everyone is looking out for number one with a survival-of-the-fittest mentality.

Tenure and experience seem to mean little these days because there are many up-and-coming turf professionals willing to work countless hours for less pay. They get a nice increase in salary compared to their prior assistant's position, but very often nowhere near the pay level of the experienced superintendent. The course "saved money" by this move, or at least that was the justification used by management—a corporate downsizing philosophy, I suppose.

I have seen a number of older, very good golf course superintendents released over the years, replaced by a younger person with a college education and maybe two or three years of experience as an assistant. Does this cost-cutting move make up for many years of experience and local knowledge of a property? I don't think so.

In reality, the overall financial position may not have improved other than in the superintendent's salary line item category. A careful look at the entire

***We all need to stop and think about the good and the bad times we've had over the years... If you are fortunate enough to have a trusting and loyal working relationship with your employee or employer, do you really want to throw it away?***

budget in subsequent years might reveal that overall spending increased while course conditioning remained the same. How could this happen? Could the previous superintendent's many years of experience have paid off in more cost-effective management and fewer mistakes? Equal golf course conditioning at less expense? It is possible. I am not implying that all young turf managers are incompetent or wasteful, but remember the adage, "You get what you pay for," and this goes for work experience also.

It is not just employers who have forgotten the meaning of loyalty. Superintendents, both young and old, are also guilty of changing jobs at the drop of a hat. Superintendents will jump ship for a small increase in salary, or make a lateral move for the chance to manage a more prestigious course. This quite commonly is justified as required to move up the ladder.

We all need to stop and think about the good and the bad times we've had over the years. Course officials must ask themselves who it was who stuck by them when the going was rough. Who was there during the lean years when there wasn't money in the

budget to perform needed course improvements or purchase new equipment? Who spent their nights babysitting an unreliable pump station to get the course watered? Or, as a superintendent, perhaps the course officials stood by you in a time of serious need such as a personal family problem or serious illness? If you are fortunate enough to have a trusting and loyal working relationship with your employee or employer, do you really want to throw it away and risk what you have for a few more dollars in your paycheck or budget? Loyal working relationships don't just happen; they must be developed. Once developed, they need to be appreciated

MIKE HUCK

*Mike Huck loyally works as an agronomist in the Southwest Region of the USGA Green Section. Credit: March/April 1999 USGA Green Section Record.*

## Facts Grind the Rumor Mill to a Halt in a Hurry

**A**lan Puckett, CGCS of the Lake Region Yacht & Country Club told me recently about a communication tool that has cut the infamous rumor mill at his course by 80–85 percent. Alan's general manager, Mike Fiddelke, picked it up from another club manager and it goes something like this.

All department heads are encouraged to report immediately or at staff meetings any unfounded rumors they hear circulating through the club. The general manager will post a memo titled "Rumor! Rumor! Rumor!" in the pro shop, clubhouse and locker rooms. The memo will simply state the rumor and then present the facts of the matter.

For example, the Lake Region Club recently rebuilt their greens and planted FloraDwarf bermudagrass. When the

first cold snap of the season hit the newly seeded greens, the bermuda turned its usual cold temperature purple. Immediately the rumor spread that the new greens were dead or dying.

The club manager wrote a memo with information supplied by Alan about the normal reaction of warm-season grasses to cold weather and posted it, killing the rumor in its tracks. Other club managers have reported similar results using this program.

It seems people become more reluctant and embarrassed to spread rumors when their gossip proves to be so inaccurate when the facts are posted quickly and everyone knows who spread the rumor. If you have a rampant rumor mill problem at your club maybe this tip can save you some grief from the whiners and complainers.

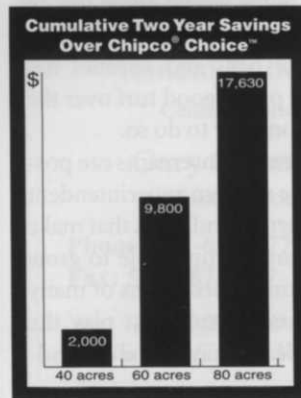


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# Soil Amendments: High Tech Dirt!

**W**ith the advent of computerized irrigation systems and spray rigs, GPS mapping, infrared photography, electric mowers and new ultra grasses it shouldn't come as a surprise that scientists and innovators have found ways to improve the soil we use to grow turf!

There are a number of products out in the marketplace that have been designed and/or are claimed to create better porosity, percolation, higher CEC rates, and nutrient retention. We won't be able to discuss all of them but I will attempt to list as many as I can. Apologies to anyone I leave off the list. Alphabetically they are: Axis, Ecolite, Greenschoice, Isolite, Profile and PSA.

These and other products have undergone varying degrees of independent university testing. They also differ in their composition and the ways they are manufactured and produced. Because of this variability, you the consumer must use due diligence in researching these products before trying them.

It is pretty easy for a superintendent to evaluate the performance of hands-on equipment. You can see the computer printout, the mow or spray pattern, the clippings cleanup, irrigation run times and all sorts of results visible to the naked eye. When it comes to things that are happening under ground we get as skeptical as the man from Missouri — show me!

Organics, biologicals, microbes, adjuvants, and now soil amendments. Keep in mind there are no silver bullets anywhere in the turf-growing world. Technology keeps pushing the envelope and giving us more options. Some would argue that in the total scheme of things, basic agronomy without a lot of bells and whistles has produced some pretty good turf over the years and will continue to do so.

I think all these advancements can provide ways for the modern superintendent to correct or amend conditions that make it difficult or almost impossible to grow turf to the exacting expectations of many of today's golfers. If you must play the hand you are dealt, maybe soil amend-

ments can be a wild card you can use to stay in the game!

## PSA and Push-Up Greens

The greens at Mountain Lake are 80-year-old push-up greens that have been resurfaced several times, but have never had work done to the subsurface profile. Some are in full sun and some are in shade. Some drain very well and some don't.

I decided to give PSA a try to see if I could achieve some consistency.

I have been using PSA for three years. I use it once a year in conjunction with my deep tine aerification. The first year I used it, we aerified the greens and removed the cores. Then we spread the PSA with rotary spreaders and then topdressed on top of the PSA. Then we used a drag brush to work the PSA and topdressing into the aerification holes.

Using rotary spreaders didn't work very well. The material is very fine and dusty. The technicians had to wear spray suits and dust masks to keep from getting it all over them and breathing it in. The second year we used a Terra-Topper topdresser to spread the PSA. This worked better than the rotary spreaders, but it was still difficult to work with.

Finally, last year I had the PSA premixed into the topdressing sand prior to delivery, and that worked very well. The PSA was mixed at a rate of one ton of PSA with 22 tons of sand. This is roughly equal to an 80/20 mix. It spread real easy and the dust

was at an acceptable level.

This year I added a new wrinkle to the process. Instead of dragging with a brush, I tried the air brush from Precision Air Tech. This machine blows 99 percent of the sand off the surface and into the aerification holes. It is a little slow, but it works great. It is not as abrasive to the surface as the drag brush method.

Over the past three years I have observed fewer hot spots each year and better drainage on the wet greens. I also seem to encounter less algae on the shaded greens. I'm sure there are other factors contributing to the improved conditions, but PSA has definitely been and continues to be a useful tool.

STEVE CIARDULLO

Mountain Lake Country Club

## Test It Before You Use It!

Two years ago, while at The Forest Golf Club I tried using PSA to solve some localized dry spot problems on our greens. My plan was incorporate the PSA into our aerification program when we topdressed. We aerified, applied the material and brushed it in.

The next day I thought my greens were dead. In looking back, I feel the material was so sharp that it scoured and cut the grass plants in the dragging process. It took several weeks for all of the greens to recover and didn't solve my LDS problem.

If anyone is considering using one of these soil amendment products, I strongly suggest that they test them on a nursery green or practice green first to assess their performance. Since that experience I have learned that there are other products out there with different characteristics. I understand some even have nutrients embedded in them and have done well in grow-in situations.

RICK TATUM

Shadow Wood Country Club

## Good Advice

"When I was a young assistant superintendent coming up through the ranks, an old superintendent once told me, 'You just need two things to grow good turf. Common sense and drainage. If you don't have common sense, double up on the drainage.'"

Sam Strimmel

National Sales Manager  
Profile Products LLC

## New Technology Gets Back To Basics

There are several soil amendment products on the market today that strive to achieve a stable, well drained, moisture- and nutrient-retaining, high-CEC grow-



ing medium for golf greens. These products fall into five basic groups: 1) Kiln-fired porous ceramics, 2) Zeolites, 3) Kiln-fired diatomaceous earth, 4) Non-fired diatomaceous earth, and 5) Kiln-fired shales and granites.

These products are used in constructing the greens mix profile of new greens and can also be used as over-the-top or drill-and-fill applications during routine aerification. Thorough soil testing for stability, particle size, percolation, capillary and non-capillary pore space, and CEC rates are critical to assure desired performance. These products differ in the way they are manufactured and should be compared and contrasted for those characteristics along with cost considerations before purchase.

By using these amendments, superintendents can overcome some drainage and root zone oxygen problems resulting from old greens with a build-up of organic material or greens with non-spec (push-up) soils in the greens mix. These amendments can also be used to treat localized dry spots, help retain moisture and nutrients in the root zone and increase cation exchange capacity (CEC) for efficient nutrient uptake.

In new construction, a porosity of 50 percent is ideal. Most natural sands average 38 percent. By adding a porous ceramic product, a soil's capillary and non-capillary pore space can be increased. The capillary pores hold moisture and the non-capillary pores allow downward water movement and air/gas exchange for root growth.

The traditional method of amending sands with Canadian peat has been used for the past 30-35 years. The primary benefit is moisture and some nutrient retention at a sacrifice of some percolation ability. The peat will degrade over time and it takes up pore space. All greens' percolation rates will slow down over time as organic matter builds up naturally. Advocates of porous ceramics and similar products feel they can achieve the same moisture retention with higher percolation rates which will remain more efficient over time without the particle breakdown.

In correcting a drainage or percola-

tion problem on existing greens, the sub-surface drain system must be functioning. No over-the-top application will correct a crushed or non-functioning sub drain. However, if the soil and thatch layer have tightened up and are causing slow downward water movement, an application of these amendments can improve the surface drainage. An ideal program for a severe problem could combine a deep tine or drill-and-fill application and a traditional shallow core aerification set at a close interval pattern with these porous materials incorporated at 30-50 percent by volume of the mix.

In routine and light topdressing programs on greens without drainage problems, a top dressing mix containing 15 percent by volume can aid in algae control and provide good oxygen sources for the crown area of the turfgrass. This mix equates to about 60 bags of material to a typical truckload of topdressing sand. Most vendors can custom mix these amendments. If you wish to mix them yourself, they do come in 50-pound bags and half- and one- ton mini-bulk bags.

In an age where we are looking toward ultradwarf grasses, some of these amendments work into the turf more easily during frequent topdressing programs because of the size and stability controls used during the manufacturing process.

In recent years it has become very interesting to note that almost two-thirds of the exhibit space at the national trade show is dedicated to products designed for management of three or four acres of putting surface on a golf course. These new soil amendments are an attempt to get back to basics. They offer a golf course a way to improve their most important growing medium, the greens profile.

In a world headed for Integrated Plant/Pest Management, these amendments can help provide a balanced soil environment with good physical properties which can enhance the necessary chemical reactions and biological processes for a good healthy turf.

PAUL SALMON, REGIONAL MANAGER,  
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## Drop Spreader Marking System at Kensington Golf and Country Club, Naples

Scott Whorrall, golf course superintendent for over three years at the Kensington Golf and Country Club in Naples has used good old common sense and ingenuity to solve a common overseeding problem: determining the exact edge where the drop spreader dispenses the desired cool-season grass onto the bermudagrass greens.

**The Solution** — bolt two “flour sifters,” one per side, onto a standard drop spreader in order to mark with flour the location where the fine bentgrass/*Poa trivialis* seed has been placed. At the base of the “flour sifters” is a funnel that was cut and attached to decrease the size of the opening of the sifter. Attached to the handles of the flour sifters, a strong but pliable piece of electrical wire was affixed and then stretched to the handle of the drop spreader. This enables the operator to pull on the wire, opening the bottom of the flour sifter and dispense a small spot of flour as the drop spreader is pushed across the green.

Whorrall said, “With the expectations of golfers continuing to escalate, precise overseed stands on greens is obviously crucial to providing superior putting surfaces during the busy South Florida winter golf season. To be precise, exacting specifications and overseed quantities must be used.” The “flour sifter” technique enables the staff at Kensington to apply evenly the exact quantity of seed that is desired.

Whorrall’s program for overseeding greens is similar to others but the Kensington staff is very meticulous. Prior to the scheduled overseeding date, nitrogen applications are decreased, the cut is lowered and then one week prior to overseeding, an application of Primo at 2 oz./1000 sq. ft. is applied to the putting surfaces. On the morning of overseeding, the greens are cut, vertically mowed with a triplex unit in four directions, then blown clean.

Whorrall is certainly particular in the actual overseeding technique. The utility vehicle carrying the seed is lined with plastic prior to loading seed bags in the bed of the vehicle to avoid any accidental dropping of seed in any location other than on the putting surface. The spreader, equipped with the attached “flour sifters,” is then placed on the green to be seeded, also on top of a sheet of plastic. The trained crew member then backs the cart right up to the putting surface and carefully fills the drop spreader with the bent/*Poa trivialis* mixture of seed chosen by Whorrall.

The operator, now ready to dispense the seed on the green, fills the sifters with regular flour. As each pass is made across the green, the operator pulls on the cord attached to the handle of the sifter dispensing a small pile of flour on the ground at the exact edge of where the seed is placed. The sifters work independently so the right and left sides are pulled separately about every three steps. By alternating the sides, the trail of flour that is placed on the green will consequently show the spreader’s path. To further increase the evenness of the overseeding, the seed is sown in two directions.

After the seed is placed, the green is topdressed, amendments added and irrigation applied. Equal care is taken with these processes to prevent the unsightly “volunteer” grass clumps from forming.

Whorrall has used the “flour sifter” technique for three years and says he is “pleased with the results.” He added, “The only negative is it (the sifters) is a little ‘rigged’ and it would be nice if it were a commercially available item.”

Darren J. Davis

Golf Course Superintendent  
Olde Florida Golf Club



Side view of spreader shows the control cord connection to the dispenser's triggers. Photo by Darren Davis.



Rear view of the spreader shows positioning of the flour dispensers at the edge of the seed drop line. Photo by Darren Davis.





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# Meet the Man With the Plan

## After 25 Years of Service to Turf Industry, Benham 'Retires' to FTGA

BY JOEL JACKSON, CGCS

**W**ho is Don Benham and what is he doing here? Maybe you haven't met him yet, but you must have seen his name in the *Florida Turf Digest* as the new director of public

relations hired last year to help the FTGA strengthen ties with IFAS and to raise funds for turf research. But why Don Benham?

Benham recently had sold his company, Benham Chemical Company in Michigan, and retired to Sarasota with his wife Ruth. His unique qualifications include 25 years of working with the Michigan Turfgrass Association and Michigan State University doing the very

same thing. It is a stroke of luck and perfect timing to be able to bring Benham on board to assist the FTGA grow stronger and more effective.

Everyone who serves as a volunteer board member of an association knows that it is often very difficult to devote quality time to pursuing the goals of a professional association when you have to take care of your primary business. Now the FTGA has someone who can

## Don Benham

### FTGA Director of Public Relations

**Originally from:** Born and raised in Detroit.

**Family:** Wife: Ruth Kurtz, since 1992; first wife: Norma died 1989; son: David works for Anderson Consulting, married to Paula Dietz. Paula was Michigan's first turf extension agent. Lives in Novi, Mich. Two children, Erica and Catherine; son: Keith, banker, two children, Christopher, and Kelly; daughter: Carol Albo, computer security specialist. Lives in Union Lake, Mich.

**Education:** two years Adrian College, two years Wayne State University majored in economics.

**Military Service:** Served in U.S. Army in Korea 1952-1954.

**Business experience/Employment history:** Sold hospitalization insurance for five years, chemicals for 12 years. In 1972 joined with Lawn Equipment Corp. and Gordon LaFontaine to form L&E Chemicals. 1979 Started Benham Chemical Corporation. Sold Benham Chemical Corporation March 1998.

**Professional affiliations/Memberships:** Belong to: GCSAA; Greater Detroit GCSA; Western Michigan and Mid Michigan GCSA; Metropolitan Detroit Landscape Association; Michigan Turfgrass Association; Ohio Turfgrass Association; O. J. Noer Association.

**Turfgrass Industry Involvement:** Greens chairman, Edgewood Country Club 14 years; greens chairman St. Ives Golf Club 3 years; board of directors Edgewood Country Club 5 years, served all chair positions including president; board of directors, Michigan Turfgrass Association - 3 years; Worked on committees with Turfgrass Association and University professors at Michigan State University for 25 years.

**People in the turf business who have influenced/helped you succeed:** I have been helped by Frank Forier, Gordon LaFontaine, Dr. Joe Vargas, Dr. Paul Rieke and many golf superintendents and other people from the industry and golf associations to numerous to try to



*Don Benham, director of public relations for the Florida Turfgrass Association and his wife Ruth at the FGCSA Reception at the 1999 GCSAA Conference. Photo by Joel Jackson.*

mention for fear of missing names. The business of golf has been full of people with helping hands.

**Hobbies/interests:** Golf and tennis are my main hobbies.

**Goals for FTGA:** My primary goal for the FTGA is to form a strong partnership with the University of Florida; making the FTGA the umbrella group for all of the allied associations in turf as well as the golf industry; supplying the university with the funds needed for a strong research program on an annual basis that they can count on for long range plans as well as short term cash.



spend that time building relationships and gaining trust of the entire network of the turf industry in Florida.

Benham's first order of business has been to get to know all the people involved in the FTGA from the board members, the office staff and the administrators and faculty of the University of Florida's IFAS operations. He has made it a point to learn the chain of command and the mission and goals of all parties concerned. And at the same time always looking for the common ground on which they all can stand and build a better working relationship.

Now Benham is moving into phase two: fund raising. After many years of successfully building up a multi-million dollar business, and helping the Michigan Turfgrass Association build up a self-sustaining research funding program, Benham is unveiling a modest, but pro-active campaign to get all stakeholders in the turf industry involved in a plan of regular funding, that is neither

## Pioneering the Way Chemicals are Sold

Operating from an office consisting of a telephone, a card table and a lamp borrowed from his daughter's dresser, Benham set out to overcome the skepticism of major chemical manufacturers toward his unique proposition: namely, that Benham Chemical could do a better job for them if it had the option of placing their products where they could best be used in that ' marketplace—in other words, representing them and their competitors.

By 1984 he had succeeded, to the point where other chemical companies adopted his idea.

Today Benham Chemical Corporation is generally credited with pioneering this change in the way chemicals are now sold to the Green Industry in Michigan. Offering customers the right product for their needs is the heart of Benham Chemical Corporation..."

*Credit: Katie Elsila*

*A Patch of Green, Sept/Oct 1993  
Michigan and Border Cities GCSA*

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expensive nor burdensome. The key is that it involves individuals and makes them part of the solution.

I have taken excerpts from two articles written about Don and his business practices. They are revealing of the character, determination, and vision of this quiet but persistent gentleman who will not give in to negativity.

He merely keeps searching and offering alternatives until he finds a way to succeed. The publications have much to say about Benham's business savvy.

I found many parallels in these articles to the way Don approaches his new position with the FTGA, and I have seen evi-

dence of some early successes in building relationships with people. I have had the privilege of sharing a few hours in discussion with Don since we have both taken on these supporting roles with the FTGA and the Florida GCSA. I have tried to give him a sense of the history of our associations. In return, Don has explained how so many of

speech, and his involvement and love for the turf business. His unique history in the business provides him with a perspective that embraces every allied association in the FTGA. We are very fortunate to have him working with all of us to become more effective. And that's what Don Benham is doing here!

the things we are dealing with are the very same issues that Michigan faced not long ago. The good thing is there is a light at the end of the tunnel for everybody if we work together. Stay positive. Start small and build slowly.

I have been impressed by Don's sincerity, honesty of thought and

***After many years of successfully building up a multi-million dollar business and helping the Michigan Turfgrass Association build up a self-sustaining research funding program, Benham is unveiling a modest but pro-active campaign to get all stakeholders in the turf industry involved in a plan of regular funding, that is neither expensive nor burdensome.***

## Benham Founded Company With a Bold Plan

**H**is idea was bold; to sell products from every major chemical manufacturer. What he had going for him was 18 years experience in the chemical business (he had headed L & E Chemicals of the Long Equipment Corp.) and faith he could build a business based on the idea of service.

But, he had to convince the large chemical manufacturers he could serve them too, even though he would also be handling products from their competitors. Benham, a large man with sharp blue eyes and streaks of silver in his hair, is a good businessman. He's also persuasive.

This August, Benham Chemical Co. celebrated its fifth year in business, its sales and office staff has grown from two to seven people, and the young company is anticipating a dollar sales volume of \$3 million during 1984. Benham and his close-knit staff have built the company to the point that it receives annual recognition.

Benham credits several factors for the success of his company, not the least of which was his initial decision to sell service as well as products.

"Everybody is out trying to sell chemicals cheaper," Benham said. "Of course we want to be competitive, but we want to sell the proper chemical for the proper job and for a proper profit. We are not always the cheapest place. We feel that service to the customer is more important than price and we feel most of our customers realize this. It takes time sometimes to convince people that they need service. Golf course superintendents recognize they need the service, but many lawn care customers take awhile to realize it. We

didn't build this business because we could sell it cheaper."

Several major changes have occurred in the chemical business in the past five years and one of the most notable has been the rapid growth of the still relatively young lawn care industry.

"Our biggest increases in sales came from the lawn care market," Benham said. "I didn't expect it to be that strong." Initially 95 percent of Benham's business was generated from golf courses, and although that continues to be a big part of his business (about 50 percent), the lawn care industry has literally taken off. What is remarkable, he feels, is that it occurred during the worst economic period in the Detroit/Toledo area since the Depression.

"We grew during those periods when the industry went kaput," Benham said. The company met its first-year \$550,000 sales goal and has made "significant increases" each year since. "We passed my five-year projection in the second year," he added. In more recent years he's been more accurate in predicting sales.

But, he continues to seek controlled expansion within his business area. "We have a lot more expansion and a lot more things to do in our own area, but we're actually having to watch a little that we don't grow too much and grow out of our location."

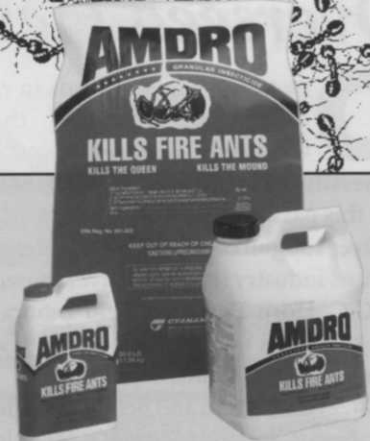
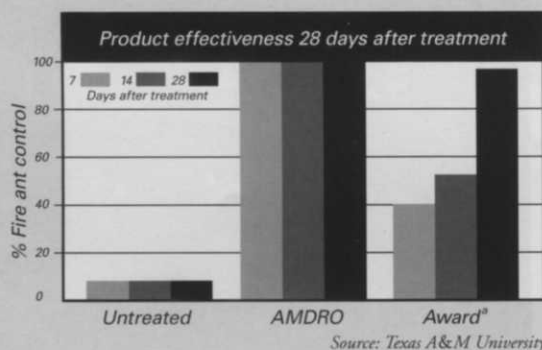
"The manufacturers are getting smarter. They want to see the background of the people selling their products..."

Credit: Ron Hall  
Weeds, Trees & Turf, Sept 1984



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*In the Envirotron Glasshouses soil and grow-in fertility projects, herbicide studies, cool season grasses identification and tissue testing correlation experiments were on display during the March Overseeding Field Day. Photo by Buddy Keene.*

## Overseed Field Day Attracts More Than 150

One of the largest crowds in recent years attended the Overseed Field Day held at the University of Florida campus in Gainesville this past March.

Over 150 golf course superintendents and turf industry representatives toured the G.C. Horn Turfgrass Field Laboratory turf plots and the Envirotron test plots and experiments.

After registration and before the field tours began, the Seven Rivers GCSA held an informal business meeting at the Field Laboratory. The chapter then joined the tour of the turf plots to hear presentations on Dr. Sartain's fertility studies; Dr. Miller's ryegrass response to herbicide residues and grassy weed control with pre-emergent herbicide; Dr.



*Over 150 attendees gather at the G.C. Horn Turf Plots in Gainesville to view results of fertility and herbicide experiments on cool season grasses and to rate color, quality, and density of various seed applications. Photo by Buddy Keene.*



Dudeck's overseeding trial results on 43 seed varieties.

After a short hop back to the main campus, the attendees toured the Envirotron and Envirogreen for updates on projects like: *Poa trivialis* seeding rates; Rubigan pre-emergence program; nematode control products; tissue testing and soil analysis correlation. Following the

glasshouse and lab tours, lunch was served. An optional golf tournament sponsored by the UF Student Turfgrass Club was held at the University G. C.

*Editor's Note: Many thanks to Buddy Keene, external VP of the Seven Rivers Chapter for covering this event and taking pictures.*



On the Envirogreen located next to the Envirotron, Field Day attendees were able to evaluate *Poa trivialis* seeding rates, Rubigan pre-emergence programs, nematode control products and tissue and soil testing analysis. Photo by Buddy Keene.

#### TIDINGS FROM THE TC

### Turf, Ornamental Faculty Make Great Speakers

#### IFAS Summer Field Day

**B**ig congratulations to the Milton Research and Education Center for hosting a great University of Florida Turfgrass Field Day in conjunction with their annual Gulf Coast Expo June 23.

A heartfelt thanks to Center Director Donn Shilling, Assistant Professor Bryan Unruh, and Professor Barry Brecke for leading the Milton effort and for extending yeoman-like effort to put on a fine program. The IFAS Field Day was held for the first time at this Northwest Florida location. The University of Florida turfgrass program gets bigger and bigger!

#### Interim Center Director

Dr. Joan Dusky is Interim Center Director of the Ft. Lauderdale Research

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## Turf Advisory Work Group

George Agrios, Plant Pathology .....	352-392-3631
Jerry Bennett, Agronomy Department .....	352-392-1814
Randy Brown, Department of Soil Water Science .....	352-392-1803
John Capinera, Department of Entomology and Nematology .....	352-392-1901
Joan Dusky, Ft. Lauderdale REC .....	954-475-8990
John Gordon, Department of Food and Resource Economics .....	352-392-1826
Terril Nell, Environmental Horticulture .....	352-392-1831
Donn Shilling, West Florida REC - Jay .....	850-994-5215
Van Waddill, Everglades REC .....	561-996-3062
IFAS ADMINISTRATION	
Mike Martin, VP for Agriculture and Natural Resources .....	352-392-1971
Extension: Jim App and Chris Waddill .....	352-392-1761
Research: Everett Emino and Richard Jones .....	352-392-1784
Academic Programs: Jimmy Cheek .....	352-392-1961

and Education Center (FLREC). She replaces David Buchanan who retired June 30. Dr. Dusky comes our way with plenty of administrative and scientific experience. Moreover, she is quite familiar with

Florida agriculture. As you may know, she is a long time professor of weed science at the University of Florida. Until this appointment, Dr. Dusky was located at the Everglades Research and

Education Center (EREC) in Belle Glade, where she conducted important weed science programs for agricultural crops. Recently, she got involved in weed research for the sod production industry. Join with me in congratulating Joan and wishing her the best of luck in her new job.

## Meet the TAWG

The University of Florida Turfgrass Advisory Work Group is composed of department chairs and center directors who have turfgrass program responsibility. Led by Terril Nell, environmental horticulture dept., the TAWG closely advises the turf coordinator and seeks your input about our turf program.

Please invite the TAWG to your programs, meetings, and events. I know they would like to speak to you about the UF turfgrass program and about what is going on in their departments as well, so give them a call for your next

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meeting. Below is a list of the TAWG departments, and phone numbers. Upper IFAS administration is not a part of the TAWG, but I know that they would appreciate an invite as well.

These administrators, chairs, and center directors are very accomplished speakers and what they can share with you is impressive as well as very interesting. Give them a call.

#### More potential speakers

While we are on the subject, are you looking for turfgrass topics for your upcoming meetings? Look no further. The University of Florida has a great team of turfscientists who are ready, willing, and able to speak to your group.

Want a change of pace? Consider inviting one of our great ornamental and landscape faculty to talk about the latest in plant materials and culture. Give me or any of our faculty a call for speaking engagements. We look forward to your invites.

#### Visit with us

Don't wait for field days or conferences to stop by. There is plenty of work going on all the time. Come and enjoy. We would love to have you come and visit and get your input. Drop in any time.

Welcome aboard to Gary Pederson as the new research green technician at the FLREC. Gary replaces Marcus Prevatte. Marcus moved on to Indian Creek as an assistant superintendent in February.

#### New Positions Update

The Turfgrass Disease research/teaching faculty position in Gainesville recently closed for applications. A big list of applications were received. We look forward to filling this key position in the near future.

The FLREC Center Director position attracted 20 candidates. Interviews are being set up. Those interested in attending interviews should contact Dr. Nan Yao-Su, the Center Director Search Com-

mittee Chair for schedules. Dr. Su's phone number is 954-475-8990.

The FLREC extension/teaching entomology faculty position brought in five applications. The Center is attempting to extend the search period to attract more applicants. Please encourage qualified applicants to apply.

The EREC is currently conducting a candidate search to fill a soil teaching faculty position. Again encourage qualified applicants to apply for this important position.

#### Research Grants/Awards Update

The recent FTGA call for research proposals attracted 18 grant proposals at a cost of more than \$500,000! I have not seen the proposals (except mine) but I am sure that these are significant projects that will help our turf industry and help advance turfgrass science. The sheer cost of the projects shows that more than ever we need your support.

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## Turfgrass Base Paper Executive Summary

### SITUATION

The turfgrass industry in Florida encompasses 4.4 million acres of managed turf that provides over \$7.3 billion to Florida's economy. Homeowners make up the largest segment with 75% of the total Florida turf acreage maintained at a cost of 3.9 billion dollars annually.

Florida has the most golf courses of any state in the Union with over 1,400 in use. Only two countries (the USA and Japan) have more golf courses than Florida. Over 60 million rounds of golf were played in the state, making golf a major recreational and economic activity in Florida.

More than 53,000 acres of sod were produced annually in Florida in the 1990s making Florida the largest sod production state in the USA, double that of Texas the next largest sod producer. Turfgrasses produced on sod farms are found on golf courses, athletic fields, cemeteries, roadsides, and in the landscape. The turfgrass industry essentially includes and/or impacts all people living in or visiting Florida because nearly all people use it on a daily basis.

### CURRENT TRENDS

Many trends are having great impact on the turfgrass industry and will continue to do so in the next decade.

- 1) increased government regulation including the implementation of the Food Quality Protection Act and the resultant loss of chemicals available for pest management;
- 2) the increase in popularity of golf and athletics, the increased requirement for better performance turf venues, the increased use of outside consultants, and the increased competition for players among golf and sport facilities;
- 3) Florida population increases leading to greater use of turfgrass sod;
- 4) aging of the baby-boom generation with migration to Florida for retirement and use of green areas for and recreational activities;
- 5) increased wealth and expendable income for recreational tourist activities;
- 6) sod quality issues including off-type contamination and the proliferation of troublesome perennial hard-to-control weeds, diseases, insects, and other pests as impacted by the changes in global weather which influence both turf management and pest pressure in Florida;
- 7) Environmental issues including water quality and water conservation efforts and impacts of other turfgrass management practices such as agrichemical use on environmental quality and human health; and (8) Labor competition due to low unemployment, and associated communication challenges of a migrant and foreign-based work force concentrated in the large yet low paying job sector in the turf industry.

### DETERMINANTS OF CHANGE

Relevant determinants of change which will likely shape the Florida turfgrass industry include politically-heightened environmental regulations, US and state economies, water quality and quantity issues, labor pool issues, global warming, and the unpredictable nature of change itself. Overall as long as the economy is strong and population demographic projections remain on target, there should be an increased demand for turfgrass venues, and for professional turfgrass management.

Association "Future of Golf" tournament, Steve Pearson, superintendent at the Falls CC and a director of the PBGCSA, presented the FLREC with a check for \$7,500 to support new research on ultradwarf bermudagrasses.

At the April Envirotron Classic, the Seven Rivers Chapter announced that it would be providing financial support of a shade-tolerance research study in the Envirotron to be conducted by Drs. Russell Nagata, EREC and Grady Miller, Gainesville. This is a great precedent for Envirotron funds to support interdisciplinary research. Seven Rivers also announced support of Dr. Jerry Sartain's soil and tissue analysis research. All the scientists extend their deep appreciation.

### Turf Faculty Notes

Congratulations to Dr. Lawrence Datnoff, EREC pathologist, on his promotion to professor, beginning this summer 1999.

Our three Florida turf faculty on sabbatical leave are set to return in mid to late summer. I recently heard from Dr. Robin Giblin-Davis, FLREC, so I guess the great white sharks and the crocs from down under haven't gotten him yet.

The Florida First Conference May 20-21 was VP Mike Martin's exciting new approach to focusing on the University of Florida's future role in Florida agriculture. Turfgrass was one of the key groups included as industry sector. Many thanks to Joel Jackson, Ray Carruthers, Mark Jarrell, and Don Benham for representing the turfgrass industry.

JOHN CISAR  
Turf Coordinator

### FLORIDA FIRST

### Focusing IFAS Resources on Solutions for Tomorrow

**O**n May 20th and 21st the University of Florida held a conference in Safety Harbor, Fla to bring together representatives of all the state's agricultural commodities.

The purpose was to discuss the future course that the Institute for Food and Agricultural Sciences (IFAS) should take to meet the needs of producers, managers and consumers in Florida.

For the golf industry there were some



# Pyramid Bermudagrass

very early positive outcomes before the opening gavel was even struck. First and foremost was the naming of turfgrass as one of the eight commodity groups of concern. Turfgrass joined such groups as Animals, Field Crops, Fruit Crops, Vegetable Crops, Environmental Horticulture, Forestry, and the group of Aquaculture, Fisheries and Wildlife.

There were 18 breakout groups from these eight major commodity groups. The turfgrass group included: Drs. John Cisar, Barry Brecke, John Haydu, Jerry Sartain, George Snyder, Everett Emino, Terril Nell and Bryan Unruh from IFAS. Industry representatives included Ray Carruthers, Sod Growers Association; Greg Tolle, Lawn Maintenance Association; Don Benham, Florida Turfgrass Association; Mark Jarrell, FTGA/FGCSA; and Joel Jackson, FGCSA.

The turf group discussed issues ranging from public awareness and education to timely technology transfer from researcher to end user. We talked about

grass varieties and the need for breeding to pursue more drought- and pest-resistant strains to meet the growing restrictions on chemical use and water availability.

We also talked about facilities and infrastructure of IFAS including the continual process of training new students and hiring faculty that can meet the needs of the turfgrass industry.

It was an eye-opening experience to see and hear the concerns and needs of the various commodities. It gave one a clearer sense of perspective of the mission of IFAS at Florida's land grant University serving a population that is 80 percent urban while 80 percent of the land is in under cultivation or in its natural state. I had a chance to chat with Dr. Mike Martin, the new vice president of IFAS and he is no stranger to the golf industry. His son works on a golf course and he was very aware of the Minnesota GCSA when he was at the University of Minnesota.

In the accompanying sidebar, I have

provided the executive summary of the Turfgrass Base Paper which the turfgrass used to kick-start our discussions. There are some familiar themes and some new thoughts to challenge you as you think about the future of the turfgrass industry in Florida.

*JOEL JACKSON, CGCS*

*FGCSA Director of Communications*

## GCSAA PUBLICATIONS COMMITTEE

### National Committee Service Broadens One's Perspective

**S**pring is the time for GCSAA committee Meetings. As soon as staff gets back from the International Conference and Show they have just enough time to clear their desks, return calls, follow up on contacts from the conference and show and then prepare agendas and working papers for nearly two months of continuous committee meetings.

I was asked to serve on the publications committee for the second year in a row and



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went to Lawrence this past May to participate. It is always a pleasure to go to our national headquarters for several reasons. Lawrence is a nice college town to visit. Staff is eager to visit with us and hear our input on procedures and problem solving. The various committee members get to hear an update on what's going on and act as additional communication links back to our state and local members.

Steve Mona gave us a "State of the Association" presentation outlining and highlighting progress on current board of directors mandates and the general health of the operation. Mona predicted we may hit 20,000 members by this July if the current membership trends continue. He talked about the "image" campaign going on currently. Ads and inserts in leading golf publications aimed at the general golfing public have garnered good reviews from rank-and-file golfers and other industry leaders. While the content may seem a bit whimsical for practical-minded superintendents, keep in mind that the message is meant for those folks who play golf in flowered shirts and striped pants!

Joe O'Brien did double duty. He gave us a look at the Professional Development Initiative (PDI) also known as Membership Standards. O'Brien took us through the time line from 1996 to the present to show how the program has been researched and discussed and hammered out along the way, with critical inspections at the last two chapter delegates meetings.

This is not something that is coming out of the blue. Nothing is in concrete and the details are still being studied and discussed by committees and the Board of

Directors. The purpose is to formulate a meaningful Class A "brand" that will be a highly respected and marketable designation of professional accomplishment. Certified status will be an additional embellishment on top of the new Class A requirements.

O'Brien then acted as facilitator for the rest of our publication committee business. He does such a masterful job. It is always such a positive learning experience to participate in one of his sessions.

The committee addressed a variety of issues including the mission and role of *Golf Course Management* magazine, *Newsline*, and *Leaderboard*. We expressed our concerns over the size and readability of the magazine with emphasis on the length of the articles and the placement of advertising to help the story flow.

We agreed that the magazine is of excellent quality and content and the issues we were focusing on rated a 2 on a scale of 1 – 10.

The biggest discussion came on how the *Leaderboard* publication might be better utilized as a tool to reach influential golfers and we even suggested that the name might be changed to reflect that audience. By reducing the amount of the complimentary copies of GCM, which is already underutilized by the members, the committee suggested those resources be put into upgrading the *Leaderboard/Influential Golfer* newsletter into a classier publication.

The recent debut of *Golfdom* and *Superintendent News* as competition for GCM was discussed, but the committee felt that the design and content still offered readers

a variety of choices. The challenge for all of the publications is to convince advertisers that their publication is the one they should choose.

With consideration of advertising, the committee felt that GCSAA should do a better job of explaining that the magazine is the second-leading revenue producer behind the conference and show and that money goes to pay for many of the services and research being conducted to enhance the superintendents' profession. Like I said before, we're a practical lot and we like to be shown the nuts and bolts sometimes.

One other comment: Time after time, as we debated issues or ideas, we would stop and check ourselves and look at the whole spectrum of members from small public courses to the mega complexes. We tried to make sure we were representing the needs and concerns of everyone from coast to coast and border to border. I would encourage every member to fill out a committee interest form and send it in. The experience is worth the investment of your time. It gives you a chance to give a little of yourself and not just your money to a worthy cause, your life's work.

JOEL JACKSON, CGCS  
GCSAA Publications Committee

**Editor's note:** For those of you that don't have a retirement plan with your club, look for the ad for "Golf Retirement Plus" located elsewhere in this issue. GCSAA has joined with the PGA of America and the Club Managers Association of America to provide this opportunity for GCSAA members. Check it out.

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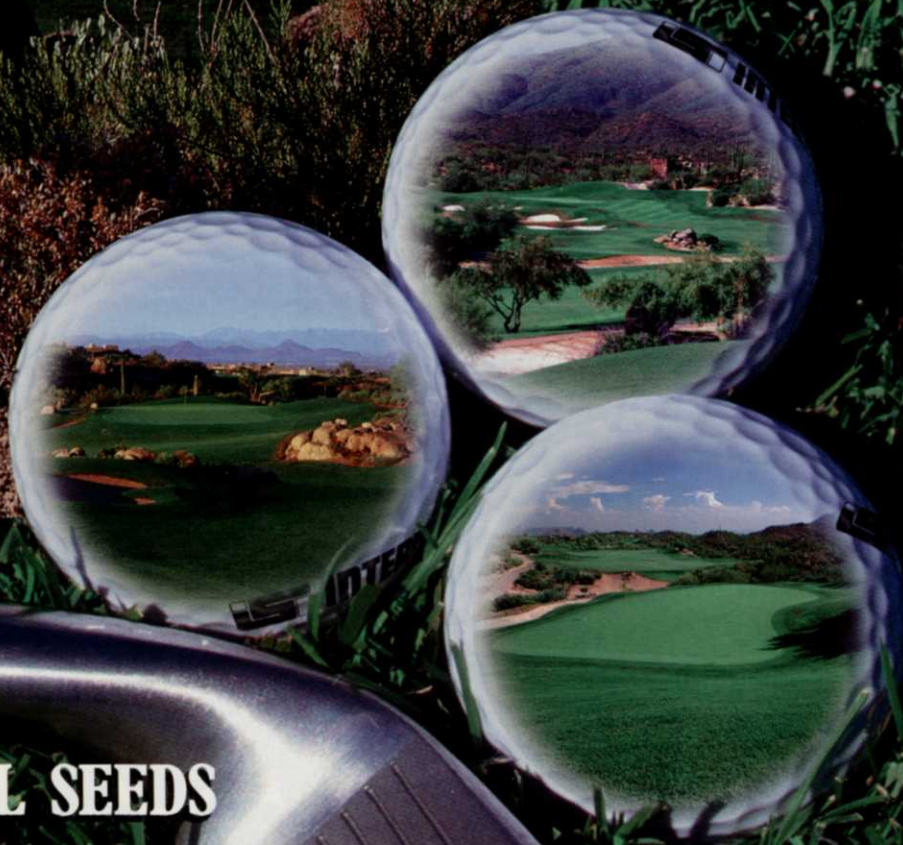


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# Bill Would Put Burden of Proof on EPA

**Rep. Allen Boyd wants to require a scientific basis to justify any pesticide bans**

**J**ust after a slew of environmental groups chastised the EPA for going easy on farmers and pesticide manufacturers, U.S. Rep. Allen Boyd, D-Monticello, began pushing a bill that would force the environmental agency to use "sound science" to justify any pesticide bans.

"There are some situations where the EPA, to meet deadlines, is making assumptions that don't have a basis in science," Boyd said. "This clarifies the process."

The bill would amend the 1996 Food Quality Protection Act, which requires the Environmental Protection Agency to set limits on the amount of pesticide residue in food. Under the act, the EPA must begin assessing pesticide residues by August and may ban or limit the use of some pest-control chemicals.

Pesticide bans and limits could hurt Florida farmers, particularly tomato growers, if no other pest-control methods are available or effective, Boyd said. Without the pesticides, Florida farmers would be unable to compete with produce imports from Mexico, where environmental controls are lax.

"The agency doesn't believe that the FQPA needs amendments at this time," EPA spokeswoman Ellen Kramer said Wednesday. "We believe we are making

our decisions based on sound science."

Kramer stressed that EPA has not had a chance to review the legislation and declined further comment.

With the introduction of Boyd's bill, the EPA came under attack from both sides. On Tuesday, environmentalists and consumer advocates serving on the federal government's food quality advisory committee quit after accusing the EPA of delaying action and kowtowing to agribusiness and chemical companies.

In a letter to the executive director of the National Campaign for Pesticide Policy Reform, EPA acting deputy administrator Peter D. Robertson defended the agency.

"Making sure that EPA's risk-reduction actions are based on sound science is the most important step we can all take to guarantee that the FQPA's promise of protection for our children and the American public is actually fulfilled," Robertson wrote. "We, too, wish that this process could be faster."

The new bill would not change the standards set out in the Food Quality Protection Act, Boyd said. But it would force EPA to prove cause and effect. If the bill passes, the EPA would not be allowed to ban or limit the use of a pesticide if it made any non-scientific "assumptions" in concluding that the chemical leaves toxic residue in food.

The bill would prohibit the EPA from basing a pesticide ban on computations or modeling results that use "worst-case" sce-

narios or on any information about an alleged adverse effect if it is "anecdotal, unverified or scientifically implausible."

The legislation also would delay any bans if alternative pest control methods are unavailable, and would allow farmers to use the pesticide during emergency outbreaks of pests.

CREDIT: DONNA LEINWAND

THE TALLAHASSEE DEMOCRAT, 4/30/99

## Florida Pesticide Review Council Meets in March

**D**oug Abbuhl, president of the Coastal Plains GCSA attended the March 5 Pesticide Review Council meeting in Tallahassee to represent the FGCSA. The following excerpts are taken from the minutes of that meeting and may be of interest to our members.

### Department of Agriculture and Consumer Services (FDACS)

Dr. Marion Fuller, Director of Food Safety for FDACS reported on the recently released Consumer Union Report, "Do You Know What Food You're Eating?" While the report tried to identify foods with higher pesticide residues, the Toxicity Index is based on USDA residue data and factoring in subjective parameters. It is inappropriate to take a single serving and compare that to a chronic index or reference dose. The index had no peer review and most toxicologists frown on using this venue for proposing a methodology for risk assessment. The FQPA has had a profound effect on our product registration system. There are more emergency exemption registrations and a slowdown in new products coming in as the agency shifts to cover FQPA responsibilities.

### Ground Water Issues

Dr. Dennis Howard, newly appointed chief of the Bureau of Pesticides, discussed a large field study that is in the resulting measuring stage. A number of the field studies were done to determine the potential for various products to leach under reasonable worst-case scenarios. A Florida-

## FQPA Participation Critical

**A**llen James, executive director of Responsible Industry for a Safe Environment, says now is the time to keep up the pressure on Congress. Grassroots response has slowed down the process, but EPA has not been swayed from their course of faulty risk assessment.

Joel Jackson, FGCSA director of communications will prepare a letter to your representative and senators for your signature on your club's letterhead stationery. Just send three sheets of your club's letterhead stationery and a self-addressed stamped envelope to Joel Jackson, FQPA, 6780 Tamarind Circle, Orlando FL, 32819. The letters will be returned to you for your signature and mailing to your legislators to keep the pressure on EPA to use good science and common sense in enacting the law.



specific field study was done in the Palatka area to test for aldicarb (Temik) in potable wells. The initial data shows no significant aldicarb in the wells in this area of the state. Dr. Howard mentioned the groundwater study done in Dade County looking for synthetic pesticides used by the golf course industry. Arsenic was found at elevated levels in the soils and shallow groundwater in wells situated at the water table, but concentrations approached background levels in deeper wells. The final reports from DACS and DERM should be available in the near future.

#### Lake Wales Ridge Monitoring Network

The focus of this project is to evaluate the occurrence of pesticides and nitrates in the vicinity of the water table in the unconfined surficial aquifer system throughout the Lake Wales Ridge and Polk and Highlands counties. This area was selected for the low organic matter content in the very clean, well-drained sands that exist in this area and for the potential for contamination from the agricultural use of the land.

#### Surface Water Projects in South Dade and St. Lucie Estuary

Seven detections of endosulfan in excess of water quality criteria for fishable, swimmable waters prompted and inter-agency meeting to determine an integrated approach to the problem. The method will be non-regulatory and includes an education and outreach component, an advisory committee made up of representatives of the industry and regulatory communities and incentive projects to encourage changes in agricultural practices which will protect surface water. The areas of concern were the C-111 and C-111E canals which drain bean and tomato fields. SFWMD has continued to monitor these canals and no further exceedances of water quality criteria have occurred. Furthermore, concentrations of endosulfan and endosulfan sulfate detected below WQC have been reduced significantly. (Ed Note: BMP's do work!)

#### Pesticide Usage Survey

Florida is required by Section 487.16, Florida Statutes to conduct a Pesticide Usage Survey every three years. The new

report in tabular format supersedes the old practice of Random Sample Surveys and is based on the number of pesticides applied, number of applications, rates, and total pounds of active ingredient.

The survey was used for the top 29 major crops in Florida. The reports are based on questionnaires sent to the growers by the USDA. A nationwide uniform procedure along with statistical validity is

used by the USDA to estimate pesticide use information. Comparisons can be made with other states because of a uniform methodology by USDA. This format appears to have more value than the old Random Sample Surveys.

#### Department of Health

DOH officials were caught unaware when the U.S. Fish and Wildlife Service

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released a press release citing that the cause of death of the pelicans dying around Lake Apopka was exposure to chlorinated pesticides. The federal agency issued health advisories in their press release. However, they have not released any of the data that their advisory is based upon.

**Editor's Note:** *These issues have potential to spill over into all commodity groups using pesticides. It is essential that you maintain proper records and comply with all safety rules and regulations so that worst-case scenarios will not dictate how the golf industry will be regulated.*

## SWFWMD Working Group Targets Nitrate Pollution

The Nitrate Remediation Working Group of the SWFWMD held a public forum called "Seeking Solutions for Springs and River Pollution" at St. Leo College in May.

The group contends that homeowners,

agriculture and the green industry, including golf, is contributing a significant amount of nitrates to the springs and river systems from the Suwannee River south to Tampa.

Compelling presentations were made documenting the rise in nitrate concentrations in water samples and the interconnection of sinkholes, underground rivers, and the springs, although it must be noted that the nitrate levels were not yet above health warning levels. However the graph of the nitrate levels is on an upward trend which is growing steeper over time. The working group wanted to tackle the problem before it became more severe and invited all interested parties to the meeting.

Erica Santella, vice president of the FTGA and one of her territory managers from TruGreen-Chemlawn represented the lawn care industry. Paul Illgen of the Glen Lakes G&CC in Weeki Wachee and I represented the golf industry. Tim Hiers from Colliers Reserve in Naples made a

presentation on IPM and good stewardship in general.

Kyle Champion of the SWFWMD summed up the concerns of the Nitrate Remediation Working Group with his study of the origins of the nitrates in springs discharge. Champion stated that between 1991 and 1998, 14 sources of nitrate were investigated (*see sidebar*).

Champion claims that using a nitrogen isotope test, they have determined that the dominant form of nitrogen present is from inorganic sources. IFAS sources I queried were not aware of such an isotope test that could make that distinction. Champion went on to state that of the seven major spring groups, four were affected by residential/golf course fertilization, two are affected by historical grove fertilization, and one by pasture fertilization.

While those statements may seem pointed, the tenor of the meeting was inclusive and not accusatory. The SWFWMD was seeking cooperation to solve a problem, not pointing fingers to castigate.



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One interesting presentation which illustrated the complexity of the problem on a regional basis was made by Jim

### Nitrate Sources

- 1) organic decay
- 2) rainfall
- 3) residential turf/landscaping fertilization
- 4) golf course turf fertilization
- 5) sewage effluent disposal via WWTP's (?)
- 6) land disposal of sewage sludge
- 7) effluent from septic tanks
- 8) land disposal of septage sludge
- 9) row crops
- 10) citrus grove fertilization
- 11) pasture fertilization
- 12) poultry
- 13) dairies (feedlots)
- 14) open range cattle and horses

Stevenson of the Florida Department of Environmental Protection. Stevenson's focus was on the famed Ichetucknee Springs northwest of Gainesville. Mysterious periods of turbidity made scientists wonder about the underground connections of springs to other bodies of water.

Stevenson's research showed an ancient river course that once flowed from Alligator Lake in Lake City to the present Ichetucknee springs and river. Remnants of the old river course are now fed by a few local creeks and sinkholes which indeed are still connected to the Ichetucknee Springs. Stevenson placed dye in Rose Sink six miles north of the springs and several hours later the dye showed up in the springs. The problem – the creeks and sinkholes in the area receive stormwater runoff from urban and agricultural areas in the basin.

### The Solution

The SWFWMD is seeking collaboration among concerned citizen groups, local governments, IFAS and industry to

address the problem before it gets out of hand. Some ways to reduce and prevent nitrate contamination: better engineering and design of residential stormwater retention systems; good stewardship in agriculture and pasture management to prevent organic wastes from moving into the creeks and sink holes; implementation of best management practices for lawn and golf course fertilization including the use of slow release and liquid fertilizers.

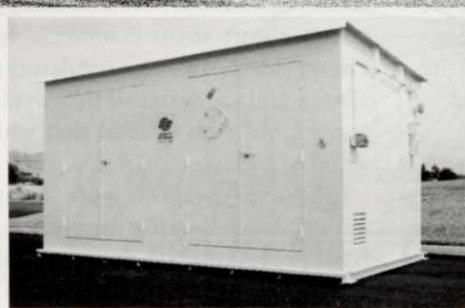
Santella and Illgen have volunteered to serve on the Nitrate Remediation Working Group to represent the turf and golf industries in future discussions.

Water quality is and will be a growing concern as development pushes farther into the pristine wilderness. You can reasonably expect this kind of emphasis to spread to other water management districts. Be prepared to offer your time and expertise in dealing with these issues in your area.

JOEL JACKSON

Director of Communications

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# Building a Consensus on Golf, Environment

**T**he Environmental Principles grew out of the Golf and the Environment conference, held in Pebble Beach in 1995. Attended by influential members of the golf industry and environmental advocacy groups, the attendees waded through tense and tentative exchanges of views, but ended up with an overwhelming consensus that the shared interests and values could be a basis for future collaborative work.

At that meeting, it was determined that an important priority of the collaboration must be the development of a set of national principles to provide guidance on matters relating to environmental considerations in golf course planning and siting, construction, operation and maintenance.

A committee of 25 golf, environmental and government representatives worked together over the next year to prepare a set of principles acceptable to all concerned.

At the next meeting of the Golf and the Environment consortium in 1996 at Pinehurst, the principles were introduced and official endorsements were sought from the organizations that worked on the document and other interested groups.

The environmental principles devel-



*Golf courses are part of our environment. By following the Environmental Principles for Golf Courses, you can make sure they remain a positive influence in communities. Photo by Tom Stone.*

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Management, 1104 East  
Ashton Avenue, Suite  
210, Salt Lake City, UT  
84106 or call (801) 466-  
3600 or fax (801) 466-  
6800 for a copy of the  
Environmental  
Principles booklet from  
which this information  
was excerpted.***

oped and approved by the endorsing organizations above will be presented here in a two- or three-part series of articles.

You may also contact The Center for Resource Management, 1104 East Ashton Avenue, Suite 210, Salt Lake City, UT 84106 for call (801) 466-3600 or fax (801) 466-6800 for a copy of the Environmental Principles booklet from which the following information was excerpted.

What are the Principles?

## **Part I. The Preamble**

The principles are envisioned as a tool of universal value, for national use under a variety of circumstances. However, it should be up to the local communities, based on local values, and others involved in the regulatory process, to assess the environmental compatibility of golf courses.

These principles are meant to provide a framework for environmental responsibility in developing goals for existing

courses and for considering issues associated with new courses. They are designed to educate and inform the public and relevant decision makers about environmental responsibility, and to help set goals for environmental performance.

These principles are voluntary. They are not intended for use in making judgments about socio-economic issues. These principles assume regulatory compliance and are designed to provide opportunities to go beyond that which is required by law.

These principles were designed through a collaborative research and dialogue process, but do not resolve all environmental issues related to golf. The dialogue and process is on-going as is the implementation of these principles.

**How Should They Be Used?**

Good environmental practice and design is the result of a multitude of factors and a thorough understanding of how these factors interrelate on a specific site in a specific locale. The principles are



meant to be used as a guide to making good decisions relative to the planning and siting, design, construction, maintenance and operation of a golf course. They are voluntary and should be interpreted as representing a whole philosophy of good environmental design and management rather than specific dictates, each of which must be met in all cases. It is hoped that the principles will be widely adopted and used to improve the level of environmental awareness, practice, dialogue, and quality achieved within the game of golf.

## Part II. The Precepts

The participating organizations are committed to the following basic precepts which provide a foundation for the environmental principles:

- To enhance local communities ecologically and economically.
- To develop environmentally responsible golf courses that are economically viable.

## Endorsing the Principles

Organizations endorsing the environmental principles include:

- American Society of Golf Course Architects
- Arizona Golf Association
- Audubon International
- Club Managers Association of America
- Friends of the Earth
- Golf Course Builders Association of America
- Golf Course Superintendents Association of America
- Ladies Professional Golf Association
- National Association of Counties
- National Club Association
- National Coalition Against the Misuse of Pesticides
- National Golf Course Owners Association
- National Golf Foundation
- National Wildlife Federation
- North Carolina Coastal Federation
- Pamlico-Tar River Foundation
- Physicians for Social Responsibility
- Save the Bay
- Shivas Irons Society
- Southern Environmental Law Center
- United States Environmental Protection Agency
- United States Golf Association

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*These principles are voluntary. They are not intended for use in making judgments about socio-economic issues. These principles assume regulatory compliance and are designed to provide opportunities to go beyond that which is required by law.*

- To offer and protect habitat for wild-life and plant species.

- To recognize that every golf course must be developed and managed with consideration for the unique conditions and ecosystem of which it is a part.

- To provide important greenspace benefits.

- To use natural resources efficiently.

- To respect all adjacent land use when planning, constructing, maintaining and operating golf courses.

- To create desirable playing condi-

tions through practices that preserve environmental quality.

- To support ongoing research to scientifically establish new and better ways to develop and manage golf courses in harmony with the environment.

- To document outstanding development and management practices to promote more widespread implementation of environmentally sound golf.

- To educate golfers and potential developers about the principles of environmental responsibility and to promote

the understanding that environmentally sound golf courses are quality golf courses.

In the next issue we will begin coverage of Part III, Voluntary Principles which will give some practical considerations in the planning and siting, design, construction, maintenance, facility operations and what golfers can do to help.

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**Heron Creek G&CC**, North Port

**Riverwood GC**, Port Charlotte

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## KEY POINTS

- No single alternative is available for methyl bromide as the government prepares to ban it.
- As a fumigant, methyl bromide kills tough perennial weeds, pathogens, insects and nematodes before turfgrass is established.
- With more time, the industry might be able to find an alternative to methyl bromide.



Drs. Barry Brecke, left, and Bryan Unruh check a newly sprigged plot of bermudagrass at the West Florida Research and Education Center in Jay. The plot is being evaluated for emerging weeds and undesirable bermudagrass contaminants. Photo by Milt Putnam. Credit: IMPACT

# Methyl Bromide Ban Will Have Huge Impact on Turfgrass Industry

By J. BRYAN UNRUH, PH.D.

**B**ecause of environmental concerns, a ban on methyl bromide will begin Jan. 1, 2001. The turfgrass industry is not prepared.

Replacements for methyl bromide appear to be less effective, more expensive or environmentally unacceptable.

New turfgrass varieties planted on greens, tees, fairways and sod fields require a clean planting bed to ensure top-quality turf, and methyl bromide provides such a planting surface by killing roots, stems and seeds of unwanted plants, as well as insects, nematodes and disease organisms.

## Application

Methyl bromide is used in the production of more than 100 crops. An estimated 46.5 million pounds were used in the United States in 1996<sup>2</sup>.

Reports lump turf use of methyl bromide under "nursery" or "ornamental" categories. In 1996, the U.S. EPA pegged "nursery" use at 12 percent, or 5.4 million pounds, of U.S. methyl bromide use<sup>2</sup>. Meanwhile, the National Center for Food and Agricultural Policy estimated that 31.3 percent, or 6.26 million pounds, of methyl bromide sold in Florida was used for nursery and sod (turf)<sup>4</sup>.

In turf, two methods of fumigation are employed. In solid-tarp application, liquid methyl bromide is injected (before planting) into the soil at a depth of 8 to 12 inches as a polyethylene tarp is laid over the soil. The chemical rapidly becomes a gas and permeates soil pores. Alternatively, in "hot gas" applications, heated liquid methyl bromide produces a gas that diffuses through a plastic drip tape under a tarp and into the soil.

After a minimum of 48 hours, the

*There is no single alternative to methyl bromide in turfgrass management... the future of preplant fumigation in turfgrass does not look promising.*

tarp is removed, and the soil is allowed to air out for at least three days before planting.

## The ozone layer

Ozone is an unstable, pale-blue gas that forms a layer in the stratosphere 9 to 18 miles above the Earth's surface. It absorbs solar ultraviolet radiation (which damages human skin). Chlorine and bromine destroy ozone. The refrigerant Freon and fire-retardant halons were among the first substances banned to protect the ozone layer.

Worldwide regulation and control of ozone-depleting substances falls under the Montreal Protocol, signed by more than 160 countries. In 1997, the signers agreed to a 25 percent reduction in methyl bromide consumption in 1999, a 50 percent reduction in 2001, a 70 percent consumption reduction in 2003 and a 100 percent reduction by 2005.

But under the U.S. Clean Air Act, the EPA has prohibited production and importation of methyl bromide starting Jan. 1, 2001. Meanwhile, the EPA has frozen U.S. production and importation at 1991 levels.

The EPA says any substance with an



ozone-depletion potential (ODP) of 0.2 or greater must be phased out in seven years. Originally estimated at 0.7, methyl bromide's ODP has been repeatedly revised<sup>6</sup>.

Since 1992, however, new information indicates the original estimate should be reconsidered. Global methyl bromide places of accumulation, called "sinks," include the atmosphere, oceans, soil, as well as plants. Factoring only the oceanic sink into the original estimates results in a lowered ODP estimate of between 0.45 and 0.4<sup>6</sup>.

### Replacements

Many methyl bromide alternatives are under consideration.

Soil solarization occurs when clear plastic is stretched over moistened soil. Over a six- to eight-week period, the heat of solar energy kills many pathogenic fungi and nematodes. Although research indicates that solarization may be a viable alternative for fall vegetable crops<sup>5</sup>, its efficacy hasn't been determined for

turfgrass. This option is probably too time-consuming for golf courses, but may be viable in sod production.

Soil amendments including composts such as yard waste, municipal solid wastes and organic materials such as blood meal, meat and bone meal, and feather meal, suppress soil-borne pathogens<sup>7,13</sup>. The large quantities of compost or amendments needed (20,000 pounds per acre

or more) make this alternative economically unrealistic.

Hot water technology has recently come under consideration for nematode control<sup>10,14</sup>. A Florida company's diesel-fired mobile boiler can heat between 250 and 300 gallons of water per minute to 200-230 F, which is both injected into and sprayed on the soil. Nematode control requires 25,000 to 50,000 gallons of water per acre,

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Chuck Jones, left, manager of St. Augustine sod production at South Florida Sod, Inc., Punta Gorda, and Joan Dusky discuss the sprigging of bermudagrass in fumigation plots located south of Arcadia. The plots are being used to determine the effectiveness of various methyl-bromide alternatives. Photo by Thomas Wright. Credit: IMPACT.

plus 300 gallons of diesel fuel per acre to heat the water. This method may not be environmentally sound, nor is it effective for disease or weed control.

Telone II, developed in 1943, was the first effective and inexpensive nematicide for general field use<sup>11</sup>. It has little activity against pathogens or weeds<sup>9</sup>, so it's frequently used with other fumigants such as chloropicrin and metham sodium.

Area treated with Telone must be closed to reentry for five days — impractical for operational golf courses, but not for sod farms or closed golf courses. Telone has been targeted by environmental groups.

Chloropicrin (tear gas) is a very effective soil fungicide, but it offers little control of weeds<sup>15</sup>, so it's often used with methyl bromide. Environmentally, it's quite benign: soil microorganisms metabolize it into carbon dioxide, sunlight degrades it rapidly and it's only slightly soluble in water, so it will not move rapidly in aquatic environments.

Metham sodium is a water-soluble pre-plant soil fumigant used to control fungi, nematodes, soil insects and weeds. Its performance varies because it must decompose after application to its active form — methyl isothio cyanate (MITC)<sup>4</sup>. In warmer, drier soils, conversion to MITC is rapid, and the chemical may diffuse out of the soil too quickly to allow control. In cool, wet soils, decomposition to MITC diminishes, and lethal concentrations of the chemical are never achieved.

Dazomet (Basamid) also reacts with soil moisture to produce MITC. As with metham sodium, results are affected by many factors. Dazomet's physical form (ultra-fine powder) imposes serious application limitations. Its label states that 24 days are needed for effective fumigation, which might be acceptable for sod production, but not for most golf courses. A Texas company has developed recommendations for blending dazomet into putting green mixes<sup>3</sup>.

Methyl iodide is in initial stages of evaluation. Limited research indicates it's as good as or better than methyl bromide for control of weeds, nematodes and soil-borne pathogenic fungi<sup>12,16</sup>. It is 1.5 times more effective than methyl bromide in controlling purple nutsedge<sup>16</sup>. Methyl iodide decomposes in light, resulting in a very short lifespan in the atmosphere. Methyl iodide is considered ozone safe with an ODP estimated at less than 0.016<sup>1,12</sup>. It's not a registered pesticide, and virtually no research history is available to allow prompt registration.

Oxidiazon (Ronstar) is the only herbicide deemed safe for newly sprigged bermudagrass in sod production. Oxidiazon is a pre-emergence herbicide

## A Political Alternative

**T**he Clean Air Act is rigid and allows no avenue of recourse for a pesticide that has been targeted.

For this reason, 73 U.S. lawmakers have joined U.S. Rep. Dan Miller (R-Fla.) as co-sponsors of HR 2609 in Congress (8) to bring U.S. regulations into compatibility with the obligations of the Montreal Protocol rather than the stricter obligations of the Clean Air Act.

The bill notes that agricultural use of methyl bromide accounts for less than 3 percent of the threat to the ozone layer, and a report in 1994 stated the Earth's ozone layer will return to normal by the middle of the next century even if methyl bromide remains available.

Alternatives to methyl bromide have many shortcomings, and detailed management schemes are not likely to be devised before the ban occurs. Likewise, too little time remains to identify, research and register new chemical alternatives. HR 2609 would buy the turfgrass industry time to replace methyl bromide by ratifying a slower ban on the fumigant.





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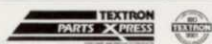
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primarily used for controlling crabgrass, goosegrass and crowfootgrass. It has no efficacy on common bermudagrass or nut-sedge, therefore it should not be considered a fumigant alternative.

#### Which alternative?

There is no single alternative to methyl bromide in turfgrass management. Nonetheless, advocates of the ban say numerous control measures are available, and more will come from research. Yet other than this author's GCSAA Foundation-funded project, no other methyl bromide alternative research is being conducted on turfgrass. Therefore, the future of preplant fumigation in turfgrass does not look promising.

#### Acknowledgments

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*J. Bryan Unruh, Ph.D. is assistant professor of turfgrass science in the Environmental Horticulture Department at the Milton Campus of the University of Florida/IFAS West Florida REC.*

**Editor's Note:** This is just one of several projects being conducted at the West Florida Research and Education Center in Milton which are funded in part by the GCSAA Foundation. This, along with the FQPA implementation, is just another reason why golf course

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*A Superintendent's Journal*

## A Year with Champion at Bonita Bay

No. 18 green Cypress course during January cold snap. Note color contrast with Tifway 419 collar. The putting surface greened back up within a few days. Photo by Matt Taylor.

*It would be an enormous risk, because at that time, no one had planted Champion on 18 greens in the state of Florida.*

BY MATT TAYLOR

**C**hampion bermudagrass had not been planted in Florida when J. Mark Black, former director of golf course operations at Bonita Bay, approached David Lucas, chairman of the board for Bonita Bay Properties Inc., and urged him to look at a new variety of bermudagrass. This grass would be used for the new Cypress Course being built by Bonita Bay (early 1996).

It would be an enormous risk, because at that time, no one had planted Champion on 18 greens in the state of Florida.

It was a risk that has paid off generously for Bonita Bay Properties, Inc. Champion grass has been planted on

three of the latest golf courses built for Bonita Bay from 1997 to 1998. The Creekside course, one of the three original courses on site for Bonita Bay Club was renovated in the summer of 1998 with Champion.

Champion and the other ultradwarf bermudas have finally brought fast, true and consistent putting surfaces to the South without overseeding and their own set of management practices.

### Establishment

The first nine holes at the Cypress course were planted in April 1997 with Champion. The greens mix is 80/20, and are built to USGA specifications without the choker layer. The day before sprigging, we spread a pre-plant fertilizer and incorporated it into the



top 6" of greens mix with a Sand Pro. The next day the greens were sprigged at a rate of 20 bushels per 1000 sq. ft.

The first 10-14 days is about the same as the Tifdwarf, so an initial watering sequence is really at the superintendent's discretion. Irrigation cycles were set for every hour starting at 9:00 a.m. and off at 6:00 p.m. (Champion does not like to be too wet after it has rooted).

On Day 10, the greens were rolled with a Salsco roller to start the smoothing process. Day 15, the greens were mowed with a Toro 1000, set at .180. No grass was cut.

Day 16, the mower was lowered to .150, and the tops of the sprigs' clumps were cut off. Starting Day 17, the mowers were brought down in increments of .010 inch to .100 over a two-week period.

The watering program was cut down to twice a day for a few days and then once per day. After a week, we watered

the greens every other day. At that point, the grass began to fill in quickly, (in conjunction with the following cultural practices).

After the greens were established, we used a Toro 3100 Triplex with double wiehle rollers to mow them daily. This was done so that the labor during the grow-in was at a minimum, because we could not spare four employees to walk mow. Two weeks before we opened (Oct. 1997), we switched to the walk mowers.

The grow-in fertility program, consisted of light frequent applications of fertilizer based on soil and tissue samples. The same day (Day 16) that we lowered them to .150" we started the fertilization on the greens.

We alternated the products, ammonium sulfate, di-ammonium phosphate and a complete fertilizer, every three days at 1/2 lb. nitrogen per 1000 sq. ft., until they were completely filled in. Once they were filled in, we went to

### Key Points

- The sprigging rate on the greens was 20 bushels per thousand square feet.
- The first 10-14 days of grow-in is about the same as Tifdwarf, so the initial watering cycle is at the superintendents discretion.
- Champion bermudagrass does not like "wet feet" after it has rooted. On average we deep water only once or twice every seven days.
- Fertility and cultural programs have to be fine tuned to prevent excessive thatch.
- Super thin bedknives are required for the necessary low heights of cut preferred by the ultradwarf grasses.
- Most people who have planted the new varieties feel the rewards are worth the effort

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Matt Taylor is the director of golf course operations for the two Bonita Bay East courses, the Cypress and Sabal in Naples. The putting surfaces of these courses were planted with Champion bermudagrass. Photo by Joel Jackson.

once a week at 1/2 to 3/4 lb. N/1000 sq. ft. depending on the growth rate.

After six weeks (on a normal program), we started to see a layer of "mat" or "thatch" on the greens that was difficult to get under control. This could have been caused from over-fertilizing the grass after establishment.

Since the 1997 Cypress grow-in, Champion was planted on the Sabal Course in 1998. The Sabal is the second and final course built at the East site.

We tried to lower the nitrogen rates to almost a normal program after the greens had filled in: once every two or three weeks in the summer.

This produced a better product in terms of "mat" production, and caused fewer problems. The grass will naturally produce its own layer, if not mowed low, and cultural practices are not followed.

The greens were topdressed with a Toro Topdresser when they were stable enough to support the top dresser and tractor. The sand was put down heavily at first so that it filled in the voids. When it was dry it was brushed with a steel drag mat.

This was done until the greens were smooth and level. Then we topdressed on a normal two-week schedule lightly.

Verticutting with a Toro Triplex started as soon as the grass was able to be verticut without ripping it from the ground.

Verticutting was done when the grass was dry and then topdressed. (The depth of the verticutter was the thick-

*The grass will naturally produce its own layer, if not mowed low, and cultural practices are not followed...*

*Verticutting was done once a week. We have found verticutting is better to do more often than once deeply.*

ness of a dime). This was done in two directions, usually 4-10 and 8-2. Verticutting was done once a week. We have found verticutting is better to do more often than once deeply.

#### Fertilization

During the last 18 months we have learned a lot about the ultradwarfs, mainly Champion, in terms of fertilization. Our normal program includes dry products as well as many liquid products.

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is also very important to us to use a guide to overall health and vigor of the greens.

Our basic program consists of a dry fertilizer every two to three weeks. It is put out at 1/2 to 3/4 lb. N/1000 sq. ft. depending on growth and time of the year. Usually we use a blend that can be put down evenly at the 1/2 lb rate.

Our liquid program consist of a minor element package once per month or as needed. We also use a 12-0-0 with Fe once per month. During the winter potassium nitrate is sprayed for color and growth response after cold snaps.

Dry fertilizer incorporation is a problem on these greens. A mini or micro blend must be used when heights are below .140.

We are still in the process of fine tuning the program, which has been successful. Rick Tatum at Shadow Wood CC has gone to more of a liquid program and is having great success with his Champion.

*Dry fertilizer incorporation is a problem on these greens. A mini or micro blend must be used when heights are below .140. We are still in the process of fine tuning the program, which has been successful.*

#### Topdressing

Topdressing is very important with this grass as with Tifdwarf if you are going to produce smooth surfaces with consistent root zone mixes. We built the greens with 80/20 and switched to 90/10 for topdressing six months after construction.

We have tried straight sand to cut back on the amount of organic matter but found that it dried or wicked the moisture out of the top quarter inch of the profile.

The greens are topdressed every two weeks lightly with a Terra Topper set wide open. At this setting it applies a very light, even coat of sand.

The greens are then brushed with a drag brush when the grass is actively growing. During cooler times when the grass may not be growing as quickly as desired we use a steel drag mat with a piece of shag carpet bolted to it.

During the summer after core aerification or verticutting, a Toro topdresser is used to apply more sand

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***This grass does not produce a very deep root system; most of its strength is in the rhizomes. This will concern most people until you are comfortable with it. I can remember during April of 1998... I would look at the roots and wonder when it was going to check out and it never did.***

*Regular topdressing is a must to groom the putting surfaces. During the cooler months a carpet, which is more gentle on the turf, is attached to the drag mat to work in the top dressing material. Photo by Matt Taylor.*

it needs to be done more or less often. Bottom line it is not on a certain schedule... just as needed.

The grass can definitely take as much light grooming as it can get. It can produce a mat layer that will affect mowing, ball roll etc, if not controlled. When we groom, the grooming reel is set at "0."

This will just tickle the grass and stand it up. You can go deeper if you do not mind the grooves made by the groomer.

Please keep in mind we keep our greens at .120 or lower during the season. We also try to control the mat layer with topdressing and mowing low.

When the grass is actively growing, we use a triplex mower with verticutting reels set at the thickness of a dime in the afternoons between play

to help control the mat layer. We then take triplex mower out behind it and mow them dry. During the summer months the verticutting with the Triplex is stepped up to once per week and is done somewhat deeper.

After the first full season with Champion, we decided in early May 1998 to Mat-a-way them. The aggressive verticutting produced some interesting results. We went very deep, setting the blades until they actually penetrated the soil slightly. After verticutting them we collected the material produced. We then mowed, fertilized and watered them.

After two days we aerified with 5/8-inch tines. They actually came back very well until we got into some weather-related stress. The conditions caused them to thin and turn yellow



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*Once a year, usually in May, an aggressive Mat-A-Way verticutting is performed to control potential thatching. Photo by Matt Taylor.*

green in color. In speaking to Mike Brown and Colonel Sam Sifers with Coastal Turf and the Institute of Sports Turf Research, they felt we had taken most of the recuperative capacity out of the grass, mainly the rhizomes. They are probably correct. This year we will Mat-a-away again but much lighter.

#### **Aerification**

Aerification is done up to six times per year on our Champion. Three times with 5/8-inch tines and three times with 1/4-inch tines. The cores are harvested and then topdressing is applied. We also put down the Toro product 12-3-9, which is an organic fertilizer, both the sand and the fertilizer are then drug into the holes. During the winter the greens are also Hydrojected

every three weeks. The Aeration helps to control the mat or thatch layer that could occur.

#### **Miscellaneous**

There are a couple of things that we have learned with the Champion: the granular fertility program must be altered to more of liquid diet. During the winter, dry blends are still very important, but at times of the year depending on heights of cuts are difficult to get incorporated.

We have also learned that during the summer we can keep the height around .150 and spray them with Primo and still produce excellent putting surfaces.

We started with a rate of .05 ounces/1000 sq. ft. and then went to .06 ounces/

1000 sq. ft. every two weeks. The Primo is mixed with 12-0-0 with Fe from Harrell's to help mask potential bronzing. After the first application we got some slight discoloration, but after that received none.

We have also found the walking greens mowers must be equipped with Micro-cut bed knives (thinner than the Tournament knives) to keep the bed bar from dragging at low heights of cut.

I have heard many negative Nellies comment that all of the ultradwarfs are more expensive to maintain. When it comes to the bed knives, I will agree. After you topdress, and the greens are being mowed at .110 no matter how lightly you apply the sand, the bed knives are disposable.





One of the key elements in managing the aggressive Champion ultradwarf putting surface is a regular verticutting program. Photo by Matt Taylor.

As thin as these are, you cannot grind them successfully.

I have seen other people who have other ultradwarfs move the position of the front roller and/or the bed bar to accommodate low cuts and undulations of greens. All of these solutions work.

We have gone from a Toro 1000 to the new Toro 800 walking greens mower on our more undulated greens. This has also helped. If you are fortunate enough to be involved in a new construction of the greens and are planning on one of the ultradwarfs, this is something you should consider. The undulations, unless very minor, will cause problems when you get the heights down.

If you are considering renovation of

existing greens, you may want to consider reshaping severely undulated greens if the slope changes quickly. Slope changes of greater than 1 percent over a small area, will cause problems during mowing.

The new varieties of ultradwarfs can definitely produce some of the finest putting surfaces possible in Florida without overseeding. They also have disadvantages which should be considered before planting.

Most people I have spoken to who have planted one of the new varieties feel as if the risk is definitely worth the reward.

*Matt Taylor is director of golf operations for the Bonita Bay East golf courses.*

***The new varieties of ultradwarfs can definitely produce some of the finest putting surfaces possible in Florida without overseeding. They also have disadvantages which should be considered before planting.***



*This photo from the Coastal Turf Company showing a plug of Champion bermudagrass was taken at the Ultradwarf Forum at the 1999 South Florida Turf Expo. Proper management of this aggressive biomass zone is the key to success for grooming all of the ultradwarf bermudagrasses. Photo by Joel Jackson.*



## Opinion

### Are We Opening the Gates to Paradise or Pandora's Box?

**T**here is a new generation of turfgrasses that have been released for use on golf course putting greens. Most of them have been under real-world maintenance and performance conditions in Florida for only two to three years at most. Are they the answer to the fast greens problems superintendents have faced in the last decade? The answer is yes and no.

I wish I could just say yes and we could all ride off into the sunset and live happily ever after, but with fewer than two dozen courses in the state growing at least three different varieties of the new ultradwarf bermudagrasses, there are a lot of unanswered questions. But even this early on, I think there are some realities that need to be discussed before these grasses get a bum rap for being something they aren't.

The one and only thing I will stipulate to is that these grasses will tolerate a lower cut. They thrive nicely on 1/8 and 1/10 inch cut. Notice I did not say they made for faster greens... only that you can cut them lower. These grasses are denser and that density keeps the ball roll at a medium speed unless you adopt a thorough grooming program. And that is where the misconception of these grasses begins.

Because these grasses require a low height of cut, architects must begin modifying how much they contour the greens or there will be scalping. Yet architects are already specifying these grasses for some of their new

courses without much performance data to go by. That's the first mistake: building in a problem.

If the design and the grass is compatible, then the next area that is overlooked is that of the club's mission and purpose. If it is a low-volume, private club that can close one day per week, then the necessary grooming of these ultradwarfs can be accomplished and provide the expected fast greens performance.

But if a course is a resort or other high-volume venue that must keep the doors open at all times, I don't recommend these new grasses at this time. The putting surface will not be as good as a well-maintained Tifdwarf greens if the necessary verticutting and topdressing can't be performed with regularity.

I have already seen a golf course struggle with performance expectations because they are unwilling to provide closed times. They want that fast putting surface but there is always a group that must be accommodated for tee times. They won't commit to giving the maintenance staff the time to manage the new grass properly. You can buy a Mercedes but if you don't change the oil regularly, don't expect it to perform like the precision machine you thought you bought.

With some of the varieties on the market, it looks like once a year you may have to get very aggressive with your verticutting program during renovation to keep thatch under control. The timing and severity of this process must be factored into the schedule of events of the club and with weather conditions so no one will be surprised during the recovery period.

Performance of these grasses also depends on the precision of the mowing units that must achieve a good



clean cut. It used to be that a good mechanic could tune up a cutting unit with a tournament bedknife and grinder and lapping machine and keep the mowers cutting at 1/8 of an inch for the two-day member-guest tournament or a four-day professional golf event. With these new grasses, mechanics must make sure the mowers can handle .125 inches or lower heights every day.

With a lower growing habit than Tifdwarf, these grasses require even thinner bedknives. Thinner metal means less wear tolerance and faster obsolescence with all the extra topdressing that must be done, which means more money in the budget for reels and bedknives. It is a price that has to be paid for lower-cut greens. And remember: lower cut doesn't necessarily mean faster unless the

other cultural practices are done frequently.

One superintendent who has experienced two of these new grasses has stated that sooner or later everyone will be managing these grasses, that they are the grasses of the future. I won't argue against that declaration except to note that currently the most successful stands of the new ultradwarfs are at private clubs where budgets are more liberal and they have the time — including off-season low play — to manage the turf properly.

These ultradwarfs may be paradise for some courses right now but they may be also be a Pandora's box of problems and disappointments for those courses not quite ready for the requirements that come with them.

JOEL JACKSON, CGCS



*Unintentional bonus of ultradwarf greens! Mole crickets seem to prefer the Tifway 419 collar instead of the Floradwarf putting surface at the Legends Course at the Orange Lake Resort in Kissimmee. Photo by Joel Jackson.*

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**W**hen I first started in the golf business, working on the construction crew at Sugar Mill Country Club way back in 1969, my boss used to tell all us inexperienced teenagers that we "obviously weren't tractor operators", or "carpenters", or "concrete men," or very good at any of the various tasks associated with building a golf course, clubhouse, and maintenance facility.

Duh! I thought it pretty obvious that 18-year-olds weren't going to have much practical experience, especially the various skills connected with the construction of a golf course and its attendant buildings. We provided strong backs and quick minds at minimum wage, and by the end of the summer I realized what a

bargain we had been even with our occasional missteps.

Over the years I've realized I'm not a lot of things, or at least not very good at a lot of things, though I've accepted responsibility and tried to do a credible job with many endeavors. So it is

with my association work - the Palm Beach GCSA, *Golfweek*, the Florida GCSA, *The Florida Green*, and now FTGA... I just plow ahead doing the best I can to improve our profession and our industry, and hope that others will see the value in the effort and help out those of us who can and do serve as officers of our associations.


Which brings me to my point. Damn few of you are helping out, and I find it hard to believe that you don't believe that the education and research our associations support aren't of benefit to you. I realize that not everyone can serve on a board, or even a committee, but the percentage of those who do anything on behalf of the profession that sustains them and their families is appalling! We're not talking about a social club that you join if you meet and like some of the people in it; we're talking about

your profession, and your obligation to give something back to it and to those that have helped you achieve your status and salary. You joined the day you decided to become a golf course superintendent.

What's that? You don't like Mark Jarrell? or Scott Wahlin? or Mike Perham? or Darren Davis? So what - if we all dropped dead tomorrow, the FGCSA and FTGA would still be in existence and working to find ways to make our industry better, and you would still be a golf course superintendent living on the edge. If we're not doing a good job, then tell us how we can do better.

Don't like the University of Florida, because their football team beats your alma mater's football team year in and year out? Get over it! The University of Florida is our state's land grant institution and is charged with conducting a turfgrass program consisting of teaching, research, and extension. Past weaknesses in the program have been, or are being, addressed. We now have a turfgrass coordinator, Dr. John Cisar. New positions are being filled. Since October, we have a man in charge of UF/IFAS, Dr. Mike Martin, who recognizes the value of golf and turf to the people of this state, and the turfgrass program is poised to become the leading program in the country.

Seventeen research proposals were recently submitted by UF turf scientists to the FTGA Awards Committee, totalling nearly \$511,000. Obviously, we don't have the funding necessary to support even a fraction of these proposals, but an industry the size of the golf and turf industry in Florida should be able to handle this amount on an annual basis. With over 1400 golf courses in the state, this would amount to about \$350 annually from each club - a drop in the bucket out of the typical club's budget.

I find it hard to believe that anyone who is reading this would disagree with the need for turfgrass research to help make our jobs easier, more secure, safer, cheaper, and friendlier to the environment. I also find it hard to believe there are so many in this industry who take advantage of the hard work of others without making a contribution themselves. Won't you please help those of us who are trying to help you? 

*Help!*

## Mark My Words



Mark Jarrell, CGCS  
Vice President  
FTGA



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## Call for Articles

This is a call for articles for the 1999-2000 issues of the Florida Green.

Contact Joel D. Jackson, Editor for more information. Phone: 407-248-1971. Fax: 407-248-1971. E-mail: FLGrn@aol.com. All slides and photographs should include identification of persons in the picture and the name of the photographer.

### HANDS ON TOPICS for 1999:

Share your best practices and tips for these upcoming topics. Slides or photographs are encouraged.

- Fall 1999 Issue - Superintendent Image and Visibility
- Winter 2000 Issue - Microbes: The Millenium Bugs?
- Spring 2000 Issue - Time Management Tips

- Summer 2000 Issue - Insect Control Since FQPA

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

### SUPERINTENDENT'S JOURNAL:

Personal observations or experiences related to any phase of the turf management profession.

### PROFESSIONAL DEVELOPMENT:

General management topics beyond turf. Examples: Education, facilities, personnel, computers, training, etc.

**INDUSTRY NEWS:** News items of interest to Florida superintendents from allied

associations in the turf/horticulture industry.

**OPINION:** Exactly what it means! Articles voicing a personal point of view on any topic concerning Florida superintendents.

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

**RUB OF THE GREEN:** Articles and anecdotes with a humorous twist.

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

**Wanted:** Slides and photographs to help tell the stories!

## 1999 Florida Green Photo Contest

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

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

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

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

### Prizes

- 1st Place (\$100) and 2nd Place (\$50) in each category.
- Editor's Choice-Best Overall Photo - \$100.
- All winning entries published in the Fall 1998 issue.

### Easy Rules

1. Color prints or slides. Only one entry per category.
2. Photo must be taken on an FGCSA member's course. Photo must be



1999 Photo contest - Category 1 — Wildlife on the Course.  
White-tailed Deer on the Laurel Oak Golf Course, Sarasota.  
Photo by Joel Jackson.

taken by an FGCSA member or a member of his staff.

3. Attach a label to the back of the print or slide which identifies the category, course and photographer. DO NOT WRITE DIRECTLY ON THE BACK OF THE PRINT. Each photo shall be attached to a sheet of 8.5 x 11 lined paper. Line up the

photo with the vertical and horizontal lines to square the photo on the page. Attach the print to the paper using a loop of masking tape on the back of the photo. Slides must be easily removable for viewing.

4. A caption identifying the category, course and photographer should be typed or printed on the sheet of paper below the print or slide.

5. Judging will be done by a panel of FGCSA members not participating in the contest.
6. Mail entries in a bend-proof package to Joel D. Jackson, 6780 Tamarind Circle, Orlando 32819. No entries accepted postmarked after August 1, 1999.



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## Consider yourself a candidate.

Applications for the 2000 Environmental Steward Awards are available from the May issue of *Golf Course Management*, the GCSAA web site ([www.gcsaa.org](http://www.gcsaa.org)), affiliated chapter presidents, program sponsors and the GCSAA service center (800/472-7878).

*We'll look forward to receiving your application by October 1, 1999.*

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**A**fter 18 months of working as your director of communications, I haven't reached a lot of conclusions, but I do have a greater appreciation for the pieces of the puzzle that make up the golf industry in Florida.

I have covered our traditional FGCSA educational sessions and fund-raising events. I have participated in government-relations working groups like FQPA, Pesticide Review Council, and Pesticide Poisoning Surveillance. I have attended the golf-media-based International Network of Golf Conference. I am

serving on committees for GCSAA Publications and FTGA Conference and Show. I am a board member of the Florida Golf Alliance and the Agricultural Institute of Florida. I am writing for four golf publications in addition to *The Florida Green* and *The Greensheet*. I am not retired!

I have learned that at many of those activities, turfgrass in general has not been a very active player, and my presence in your behalf has been welcome. Remember, however, that all politics is local and I can't be everywhere. Therefore, local chapters must constantly share the burden of involvement on issues and then share that information statewide.

In many arenas superintendents have become advocates for issues that go beyond their job descriptions and I would really like to see owners and managers pick up some of that slack. Superintendents are employees and sometimes they jeopardize their "day job" as they tackle community and association service issues. Owners and managers in partnership with superintendents should take more of a lead in fighting water resource and other environmental issues. Superintendents have the expertise, but owners and managers often have more influential contacts on a daily basis.

It was interesting to attend the ING conference in Daytona last May where I rubbed elbows with golf media, golf equipment manufacturers, marketing reps and other golf-related businesses. There is a whole world of

golf out there that has only a fleeting interest in what we deem to be critical issues. While superintendents are acknowledged as playing an important role in conditioning golf courses, these folks are busy attracting players to the game and outfitting them with the longest distance golf ball, the "can't miss" golf club, and the latest training aid that will improve their swings. It would be nice if somehow a fraction the millions of dollars spent on greens fees, equipment and golf travel each year could find its way to turf research.

Finally, it seems that apathy keeps rearing its ugly head as far as participation at local chapter meetings is concerned. No one seems to know why more superintendents can't make it to the meetings in greater numbers. Associations are run by those who show up! You don't have to spend the whole day. Just attend the business meeting and educational session. Chapters have tried having meetings in the morning, afternoon and night. Some chapters have even picked up the tab for the meeting so it doesn't cost the member anything.

Chapter leaders want to know, "What is the problem?" Are people job scared or just lazy? Ever notice how the numbers do go up when the meeting is held at a new upscale golf course? Do they have a bone to pick with the chapter leadership or education programs? If you only want to be a "checkbook member," don't complain or criticize.

Maybe the pool of truly professional superintendents is shrinking. Maybe the new generation either knows it all or doesn't know enough. Maybe they haven't established good working relationships with their owners and managers, and they just work hard and endure. Maybe they lack the confidence and ability to run a good program that will let them take off for a few hours once a month to get involved in their association that seeks to make them professionally and personally better.

The golf industry is a big puzzle and there are a lot of ways to look at it. Our piece of the puzzle holds the key to a lot of solutions to problems that affect the whole picture. Make a commitment to be an active partner in putting the puzzle together.

## Putting The Puzzle Together

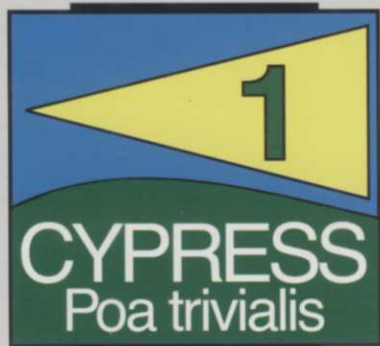
### Green Side Up



Joel Jackson, CGCS  
Editor



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