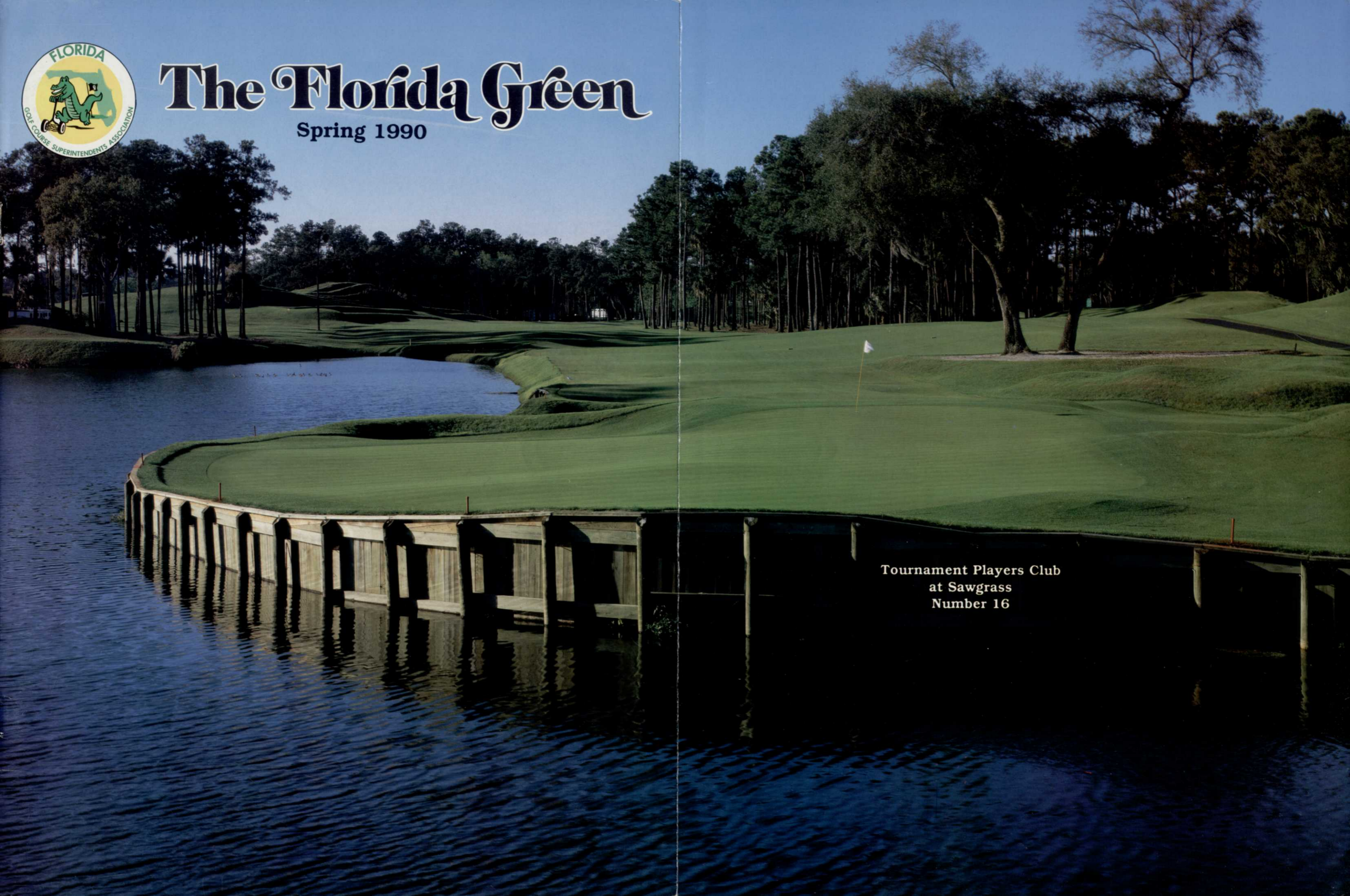




The Florida Green

Spring 1990



Tournament Players Club
at Sawgrass
Number 16

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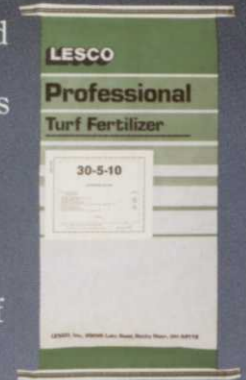
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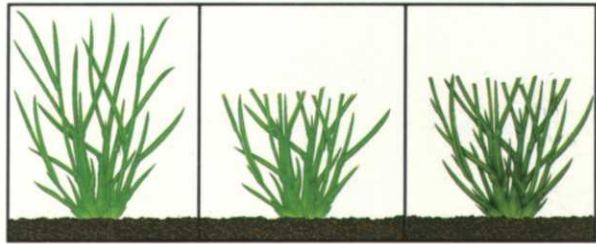
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The Florida Green

Official Voice of the Florida Golf Course Superintendents Association

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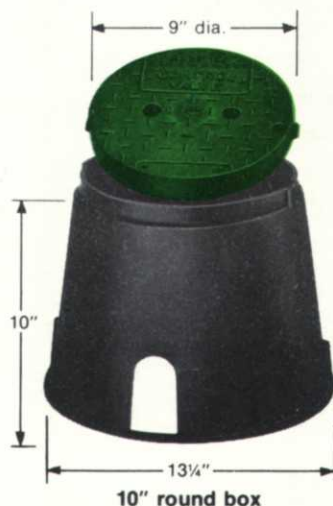
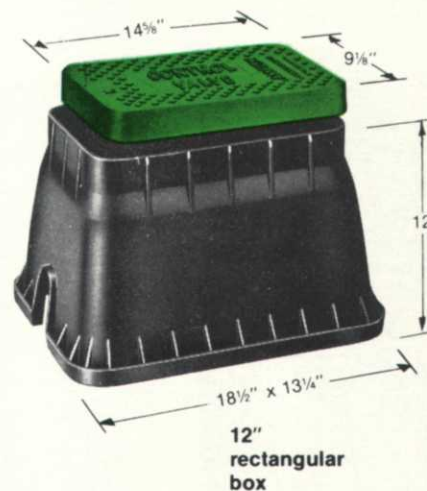
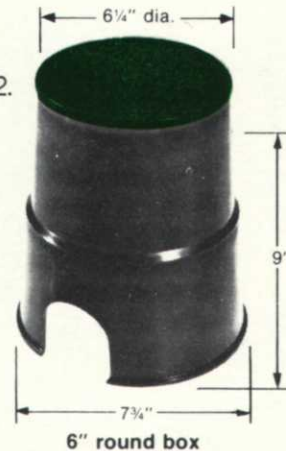
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have a few comments and kudos on the 61st GCSAA Conference and Show held in Orlando last February.

Special thanks to the FGCSA members that served on the GCSAA Conference and Show Committee. They did an excellent job during the GCSAA Golf Tournament and the Conference. The GCSAA staff and newly elected

president, Gerald Faubel, were most sincere in their praise and thanks for a job well done.

Another job well done was at our host booth manned mainly by Marie Roberts and Paul Turcotte. They were excellent ambassadors to our visi-

tors. Dan Jones and Mike Bailey were everywhere taking pictures.

Tom Benefield and Mike Perham fulfilled their duties as voting delegates with great diligence, helping to formulate strategies to promote the most qualified candidates for national office.

I was able to spend time with representatives from other states who sought us out for information about our organization and publications. We received a very warm and substantial ovation for our record-setting chapter contribution to the GCSAA Scholarship and Research Fund and Robert Trent Jones Endowment Fund.

I was able to recognize each of our ten chapters and The Florida Green for their contributions to this donation. In summary, the FGCSA represented itself well as the host chapter and was recognized for its activity, leadership, and organization. I was very

proud to participate as your president.

I must admit that I came away with a sense of urgency that we must do more, and do it soon, particularly in government relations and fund raising. They are related. The management and ownership of the golf courses in the state of Florida must unite with the golf course superintendents to formulate responsible strategies to present to the legislature and deal with environmental concerns.

Together, we must get the Florida Legislature to recognize and acknowledge the economic impact of the golf industry, so the government will consult with us on environmental and safety issues. If we do not, we will end up riding a compliance merry-go-round that leads to miles of red tape instead of acres of green grass.

How will clubs survive if 24-hour to four-day re-entry restrictions are imposed after spraying the greens?

For too long, the superintendent has been carrying the burden of fund raising for turf research. What about the owners and members who demand superior playing conditions? They have the most to lose if chemicals are banned or regulations make it impossible to manage the turf economically.

Of course, we can settle for lower aesthetic standards and less playable conditions, and that will be the result if we don't get the needed support.

There is a lot of money out there that needs to be directed to tax-exempt organizations to conduct turf research and to coordinate legislative activity. Gov. Bob Martinez just cut the ribbon on the 1,000th golf course in Florida. While that is

The applause was nice, but let's get to work



Joel D. Jackson

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notable and shows our growth, it also tells me there is another course that will be a target for environmental regulation if we don't get our act together.

If each of these one thousand courses would budget \$1,000 each year — a fraction of their budgets — that would yield \$1 million annually. That amount, combined with generous donations from concerned individuals as endowments and trusts, can make golf in Florida environmentally responsible and economically successful. We are making positive strides in the efforts to find natural biocontrols for our turf pests, but we need more help from everyone in golf.

Superintendents often get caught between the proverbial rock and hard place when they walk the line between regulatory compliance and budget-conscious owners who demand ever-better playing conditions.


Instead of being scapegoats, we want to be partners in the successful, environmentally responsible operation of our golf courses for the benefit of all Floridians. A healthy, thriving golf course in

an urban area is still an excellent wildlife habitat and nature's best air and water filter for the environment.

And finally, I must notify you officially that Cecil Johnston, our candidate for GCSAA director, had to withdraw at the last minute, just as the FGCSA's national leadership was about to be recognized by the unparalleled support his candidacy was receiving.

But to participate at the national level, a superintendent must have the support of his club. While this endorsement was given initially, and widely distributed in campaign literature, it was withdrawn in the most severe and contradictory manner one month before the election.

I wish you could have heard Cecil's speech at the Meet-the-Candidates forum. He demonstrated the true professional qualities that make him a leader in our profession. Many said he was the best speaker of the evening.

Thank you, Cecil, for being willing to make the commitment for our profession. We hope you will try again. 



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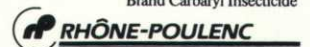
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Dennis Lyon, CGCS, GCSAA president, outlines agenda for inaugural International Roundtable. From left are Lyon; Claus Detlef Ratjen, West Germany; Ken

Olsvik, Canada; R. Vince Gillis, Canada; Paddy McCarron, England; Joe Baidy, CGCS; Doug Robinson, Australia; Ricardo de Udeta, Argentina.

Show sets records; forum, roundtable break new ground

The 61st International Golf Course Conference and Show at Orlando's Orange County Convention/Civic Center Feb. 19-26 set records and opened a new era on two fronts.

Attendance of 17,400 shattered the old mark of 14,500 set in Anaheim, Calif., last year and the trade show attracted 552 exhibitors (nearly 100 more than the previous high) who used 170,000 net square feet of booth space, a considerable increase over last year's 143,000.

At the instigation of GCSAA Vice President Jerry Faubel (elected president a few days later), 14 high-ranking golf officials of 10 foreign

FOREIGN CONFEREES

Argentina	8	Korea	74
Australia	42	Malaysia	2
Bahamas	1	Mexico	26
Barbados	1	Netherlands	15
Belgium	12	New Zealand	8
Bermuda	4	Norway	10
Canada	506	Peru	2
Chile	1	Philippines	3
China	5	Portugal	16
Colombia	3	Puerto Rico	3
Denmark	7	Scotland	8
England	134	Singapore	16
Finland	42	Spain	32
France	32	South Africa	10
Germany	27	Sweden	105
Guam	1	Switzerland	6
Holland	3	Tahiti	1
Hong Kong	6	Taiwan	7
Ireland	6	Thailand	8
Israel	2	Uruguay	1
Italy	56	West Indies	1
Japan	341	Total	1594

countries discussed environmental issues and mechanisms for pooling scientific and technological resources.

Environmental stewardship also was the major theme of the second annual Government Relations Open Forum, a symposium featuring four "outside" speakers and four golf course superintendents.

Preliminary results of the Cape Cod Study of pesticide pollution of groundwater showed extraordinarily positive results, according to Stuart Cohen of Biospherics, Inc. Richard Shanks explained the GCSAA's insurance program for storage tanks.

Ann Leslie of the U.S. Environmental Protection Agency discussed integrated pest management and Steve Wharton of Hall-Kimbrell, Inc., announced that participation in its GCSAA-sponsored environmental self-audit program has grown to the point that it now generally reflects the geographic distribution of GCSAA membership.



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Speakers at the Government Relations Forum, from left, Bill Roberts, CGCS, GCSAA government relations chairman; Robert Ochs, GCSAA legal counsel; Richard Shanks, Financial Guardian of Kansas City; Stuart Cohen, Biospherics;

Ann Leslie, EPA; Steve Wharton, Hall-Kimbrell; Ted Horton, CGCS; Gary Sayre, CGCS; Jim Loke, CGCS; Dave Fleming, CGCS.

Builders Assn. exec Don Rossi, 71, dies; former NGF head

"We're still in shock," said Jim Fazio, president of Jim Fazio Golf Design, Inc., of Juno Beach, a week after the death of Don Rossi, executive vice president of the Golf Course Builders of America.

Rossi collapsed from a heart attack at his home in North Palm Beach Gardens on the morning of March 10 and died of a few hours later. He had been dressing to play in a pro-am with his longtime friend, Dr. Gary Wiren, at North Palm Beach CC, where Rossi was a board member. He was 71.

Rossi took the Golf Course Builders post after retiring as executive director of the National Golf Foundation in 1983.

"What impressed me most about Don was his vast knowledge of the



NGF FILE PHOTO

Don Rossi

industry," said Tom Guettler, president of Guettler & Sons, Inc., one of the early members of the GCBA.

"He knew all the major players in the development game on a

personal level and helped us deal with their individual tastes and habits."

A football player and boxer at Michigan State University, Rossi's first career was the U.S. Air Force, from which he retired as chief of sports worldwide with the rank of colonel.

He was a football and basketball official in the Southwest Conference and the National Football League and was the first general manager of the Dallas Texans (now Kansas City Chiefs) in the American Football League. He hired Hank Stram as the team's first coach.

He joined the National Golf Foundation in 1970 and nursed it through a tough financial period.

"The most important thing about Don Rossi was not his contribution to the golf industry — and that was great — but the simple fact that he was a moral, upright man," said Fazio. "When we lived in the same parish, I used to see him in church every morning.

"In the end, the only thing that counts is the kind of life you've led. Don lived the best."

Survivors include his wife, Ruth; son, Michael, of Memphis, Tenn.; three daughters, Gail Landen of Palm Beach Gardens; Mary Donn Jordan of Washington, D.C.; and Betsy Lum of Honolulu; and four grandchildren.

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Florida's 1000th golf course opens in West Palm Beach

Nobody knows for sure exactly how many golf courses Florida has at any given moment, but the National Golf Foundation and the Florida Department of Commerce arbitrarily declared the Emerald Dunes Golf Club, an 18-hole public facility in West Palm Beach, as the state's 1,000th.

Among the dignitaries on hand for the ceremonial opening of the 7,006-yard, Tom Fazio layout Feb. 23 were Gov. Bob Martinez, NGF President Joe Beditz, Florida Secretary of Commerce Bill Sutton and PGA of America Executive Director Jim Awtrey.

No state or national GCSA officials were invited. Host was Raymon Finch, Jr., principal partner in the development.

The event was promoted heavily by *Golfweek*, a national weekly newspaper that began as a Florida publication.

FTGA asks Shepherd to run show full-time; Yount named executive director

Bob Yount, vice president for development of the Florida Turfgrass Research Foundation, was named executive director of the FTGA Dec. 15. In addition to overseeing all activities of the 850-member FTGA, Yount will continue to coordinate all fundraising efforts of the research foundation.

Ruth Shepherd, former FTGA executive secretary, was appointed show coordinator of the FTGA's annual trade show.

Susan Callahan, FTGA administrative assistant and membership coordinator, will manage the FTGA office and supervise the staff.

The 1990 FTGA Conference and Show will be Sept. 30-Oct. 3, one week earlier than normal. After several years in Tampa, the show moves to the Orange County Convention Center in Orlando this year.

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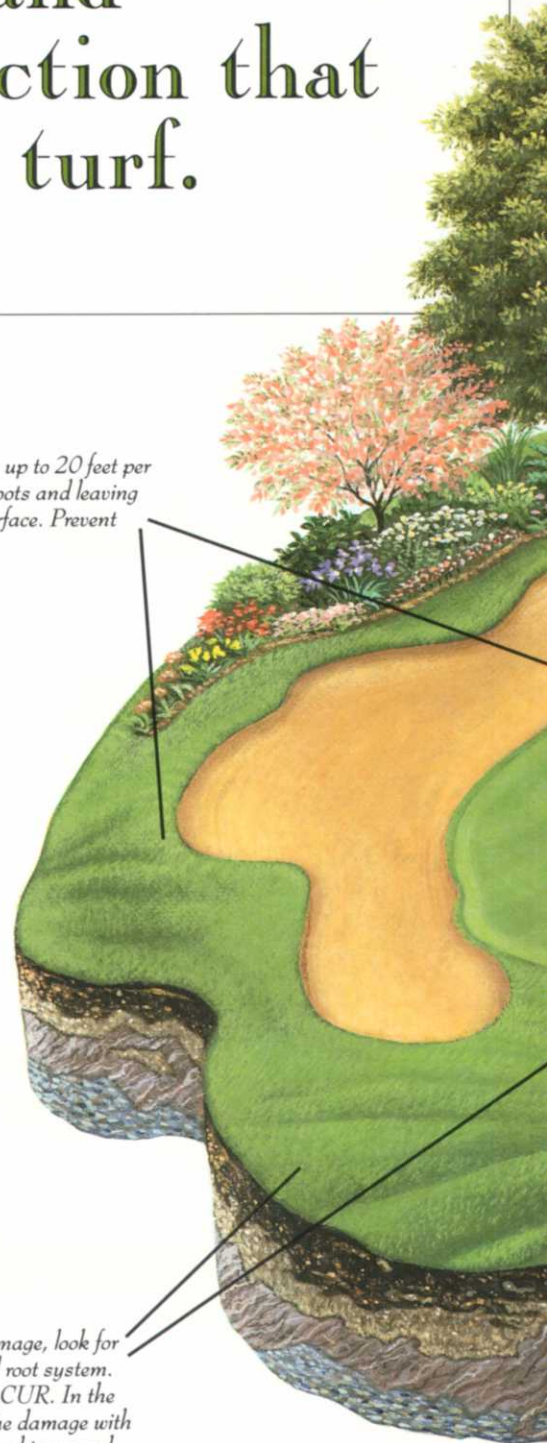
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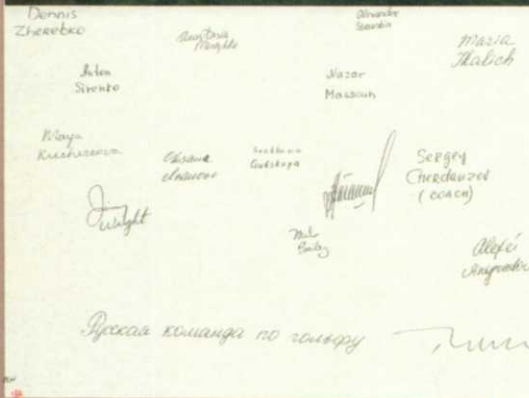
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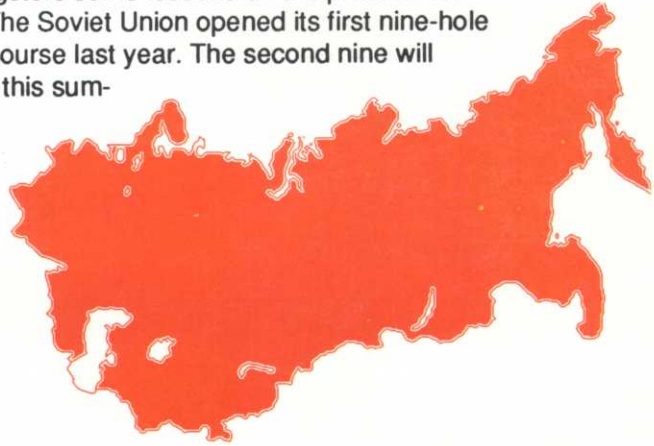
THE RUSSIANS WERE HERE!

A group of Soviet teenagers and their coach and chaperones spent a day at The Falls CC in West Palm Beach to learn more about golf.

The five boys and five girls, chosen from 200 applicants, received lessons from Superintendent Mike Bailey on golf course maintenance practices. Afterwards, everybody posed for this picture which, with the signatures, made a nice souvenir for Bailey's office.

Falls CC Head Professional Jimmy Wright gave the youngsters some lessons on the practice tee.

The Soviet Union opened its first nine-hole golf course last year. The second nine will open this summer.



USGA Green Section national director retires

William H. Bengeyfield, national director of the United States Golf Association Green Section since 1982, retired March 31.

A successor was expected to be named as *The Florida Green* went to press.

A native of East Williston, N.Y., Bengeyfield was graduated from Cornell University in 1948 with a bachelor's degree in ornamental horticulture.

He joined the USGA in 1954, and served as agronomist and western director of the Green Section until 1978, when he became director of golf courses and park maintenance at Industry Hills GC in Industry, Calif.

Bengeyfield rejoined the USGA in October, 1981, and became national director four months later, responsible for directing the Green Section's national program and its 14 staff

agronomists, supervising the championship course preparation program and editing the magazine, *The Green Section Record*.

The GCSAA honored Bengeyfield this year with its Distinguished Service Award in recognition of his "dedication and outstanding service to golf course superintendents and the profession."

He also served on the editorial board for the book, *Turf Management for Golf Courses*, and wrote the 1989 revision of USGA green construction specifications.

Golf House exhibit features search for the perfect course

"In Search of the Perfect Course" will be the major exhibit at the USGA museum at Golf House in Far Hills, N.J., until fall.

The exhibit is a review of golf course architecture, featuring quotes, photographs and paintings of a number of prominent architects, such

as A.W. Tillinghast, Donald Ross, Alister MacKenzie, Robert Trent Jones, Jack Nicklaus and Arnold Palmer, and paintings and sketches of some of the courses they designed.

Included in the display is a drawing on silk of the layout of Gleneagles in Scotland. The exhibit also includes original diagrams and paintings.

Golf House is located near the intersection of Interstates 78 and 287. It is open from 9 a.m. to 5 p.m. on weekdays, and from 10 a.m. to 4 p.m. weekends.

Cape Cod study exonerates properly used turf chemicals

The results of a major new study, conducted on the sandy, "worst-case" soils of Cape Cod, Mass., indicate that properly used turf chemicals pose no hazard to surrounding groundwater under EPA

(Continues on page 20)

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FAST RELIEF FOR CONGESTION HEADACHES.



GCSAA expects to occupy new headquarters next February

The GCSAA broke ground Jan. 12 on its new \$4 million headquarters complex overlooking a new 18-hole golf course at the Alvamar G&CC in Lawrence, Kan.

The 40,000-square-foot structure,

which should be completed by next February, will allow the GCSAA to develop a large educational facility, including an extensive periodical library with advanced audio-visual equipment.

The new building is about one mile west of the organization's current headquarters, also overlooking a golf course at Alvamar, which the GCSAA has occupied since 1973.

Cape Cod study exonerates

(From page 18)

health standards.

"For the first time, superintendents have documented scientific evidence showing the effect of their operations on man's most precious resource," writes Tom Akins, GCSAA government relations manager, in the February/March issue of *Government Relations Briefing*.

A total of 19 monitoring wells were installed at the tees, greens and fairways of four Cape Cod courses. These wells were purged and sampled quarterly by hand for four quarters over a year and a half.

Each GCSAA chapter will receive one copy of the complete study. For more information, contact the Office of Government Relations, 1617 St. Andrews, Lawrence, KS 66047; phone 800-472-7878.

CORRECTIONS

56 Florida supers certified

A total of 56 active members of the FGCSA are **certified golf course superintendents** as of March 1, according to Marie Roberts, FGCSA executive secretary. Another 28 live in Florida, or earned their certification in the state, but are no longer active in the FGCSA.

Palm Beach	13
Central Florida	9
North Florida	8
Everglades	6
South Florida	6
Treasure Coast	6
West Coast	5
Sun Coast	2
Ridge	1
The incorrect totals were reported	

for several chapters in the Winter 1990 issue.

• • •

Ed Seay is the architect of record of the Oceanside Course at Sawgrass in Ponte Vedra. The chart on page 29 of the Winter 1990 issue incorrectly credited the work to a different architect.

• • •

The assistant superintendent at Banyan GC in West Palm Beach is **Tim Enochs**. His last name was misspelled in the Winter 1990 issue.

• • •

Weston Hills CC in Fort Lauderdale was omitted from last quarter's Development Report. The 18-hole layout by Robert Trent Jones, Jr. was planted last month.



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'I can't think of a better job'

Managing the Tournament Players Club at Sawgrass is one of the profession's most challenging jobs but Fred Klauk loves it.

BY LARRY KIEFFER

Fred Klauk arguably has the most demanding job in golf course management. And he loves it.

Consider any one of these assignments:

- Maintain one of only two courses in the world to be the permanent site of a world-class major golf tournament.
- Maintain the golf courses at one of the world's major destination resorts where golf is the principal attraction.
- Maintain a golf course whose layout is controversial... by design.
- Maintain a golf course that belongs to the world's best players, each of whom has very strong ideas about course conditions and all of whom, once a year, play it for extremely high stakes.

Klauk, superintendent of the Tournament Players Club at Sawgrass in Ponte

Vedra, has all four assignments.

"I really enjoy it here," he says. "I can't think of a better job for a golf course superintendent."

This from a man only a week after the conditions on his golf course had drawn severe criticism on national television by some of golf's biggest stars who, through their organization, own it.

"Frankly, the whole situation got blown out of proportion," said Klauk, referring to the well-publicized complaints from competitors in last month's annual Players Championship, now generally regarded as golfdom's fifth Major championship.

Of the other four "Majors" (British Open, U.S. Open, PGA and Masters), only the Masters is held annually on the same course: Augusta (Ga.) National Golf Club.

"Some of our greens weren't perfect — and most players knew why — but a few complained and the media picked up on it.

"Then, when rain stopped play on Saturday, they (NBC Television) had 20 minutes to put a show together to fill the time and naturally they had to talk about the course conditions and some of the players got a little emotional.

"I can understand that."

Although he didn't have to, Klauk agreed to appear on the show to try and explain what had led to the less-than-perfect greens.

"Nobody made me go on the show but the thought of refusing the invitation never entered my mind," he said.

"I was eager to appear. I don't think very many superintendents get the opportunity to explain how incredibly com-

The Island No. 17 is probably the world's most photographed golf hole.









Number Sixteen

The Tournament Players Club at Sawgrass

The TPC Stadium Course rewards the well-struck shot but penalizes poorly struck shots more severely than most golf courses.

We try to have the greens rolling at about 10 on the Stimpmeter for The Players Championship. When the tournament is over, we'll back that off a bit, perhaps a little above 9, but otherwise we try to keep the course in tournament condition through the end of June. We have another heavy tourist season in October and November, but that is overseeding time so it is difficult to maintain tournament-level firmness.

Agronomically, the TPC requires intensive hand labor because of the contours and plantings. We have a crew of 44 to maintain the Stadium and Valley courses, with one assistant for each course.

The tees and fairways are 419 bermudagrass overseeded with rye. The greens are Tifdwarf bermudagrass overseeded with a combination of Pennway bentgrass and poa trivialis.

The course was cut from the woods, which causes some shade problems, but it's beautiful. We have osprey and nesting bald eagles. My favorite view is Number 11.

The TPC Stadium Course was designed by Pete Dye and built in 1980. It measures 6,857 yards from the back tees, playing to par 72 with a USGA rating of 74.0 and a Slope of 135.



Fred Klauk



Number Eight



Number Four



TPC Maintenance Complex



Number Seventeen



Number Thirteen



PHOTOS BY
DANIEL ZALEZEK



Number Seven



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Klauk and Chief Mechanic Mark Sanford check each piece of machinery as part of the pre-tournament set-up procedure.

DANIEL ZELAZEK

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plex our job is and I was grateful to have one.

"The only thing I regret about the whole affair is the extent to which it shifted the focus away from the golf. There was some fantastic golf being played out there," said Klauk who plays to a two handicap, was intramural champion at the University of Florida, and twice has been a member of a Florida team that has won the GCSAA national championship.

The less-than-ideal conditions on some of the TPC's shaded greens came as no surprise to Klauk or, for that matter, to PGA Tour Commissioner Deane Beman.

In an interview with *The Florida Green* a week before the Players Championship, Klauk reported, "Deane was here earlier this morning. He is concerned about stress to the greens because of traffic.

"We had 48,000 rounds on the Stadium Course last year. That's too much.

"Anything above 35,000 is trouble. And when you put heavy traffic on Pete Dye's small, shaded greens — this course was cut out of a heavily wooded area — you're just asking for it.

"We are going to recommend to the Tour Policy Board that they close the course one day a week during the heavy season and that they close it to resort guests earlier than the Saturday before the tournament."

Klauk and Beman could not have asked for better ammunition to take to the Tour Policy Board than the subsequent events.

"Deane has been very, very supportive of me and of the whole crew," said Klauk in the interview following the tournament. "He understands the agronomics."

Klauk said morale among his crew (44 regulars augmented by 16 tournament temporaries) was extremely low Saturday night of the tournament.

"But I told them that we all had a mission to prove to the players that the conditions were not nearly so bad as some of the players had been saying they were," Klauk said.

"And the scores the next day proved us right."

Jodie Mudd's winning 278 was one stroke better than last year's title-win-

ning 279 by Tom Kite.

If Klauk's job is demanding, at least he has lots of help.

He has two assistants, one for the Stadium Course and one for its lesser-known sister, The Valley. The crew normally works 90 hours over 12 straight days and then gets a weekend off. Half the crew is off each weekend.

Tournament preparations begin about 10 weeks beforehand. From two weeks before tournament week, through the end of the tournament, the work schedule shifts to 60-hour weeks.

"The crew loves it — it's an incentive for them — but I can't say the same for the salaried guys. My assistants and the chief mechanic and I each put in more than a hundred hours a week in that same period."

During tournament week, each assistant becomes responsible for one nine and one crew member is assigned responsibility for each hole.

"During pre-tournament set-up, we have a daily punch list for each hole that we expect the staff to take care of. By having one person responsible for

each hole, it is easy to go to one person and say, 'Here is the punch list on this hole. Please take care of it.'

"At a Tour event, they go off from both tees starting at 7:15 a.m., so it takes twice as many people to stay ahead of the players.


"Whereas you would normally start mowing greens at one and two and just flip-flop through 18 holes, for a Tour event, you have to start mowing at one, two, ten and eleven at the same time.

"That's one advantage to having a crew that normally takes care of 36 holes. You have enough to do the tournament.

"When I was at Eagle Trace (Klauk was superintendent at the TPC at Eagle Trace in Coral Springs from 1983 to 1986 before moving to Sawgrass), I had to get eight superintendents from other courses to volunteer to help mow greens and rake traps during the tournament (Honda Classic)."

Klauk doesn't need help from his fellow superintendents these days, but he gets help from other places — the PGA Tour's agronomists, the Tour

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staff, and from his contemporaries at the eight other Tournament Players Clubs and three licensed TPCs.

The Tour's agronomists, who are based at the organization's headquarters just down the road, make two official visits each year: the first about four months prior to the tournament and the second about a month before.

"They have checklists for everything from course condition to making sure I have the right equipment on hand," Klauk reports.

"On the second visit about a month before the tournament, they recommend a program to correct any turf problems that have shown up."

Other Tour officials also offer suggestions, including Beman and Klauk's two bosses: the club general manager and the Tour's director of golf course maintenance.

"About eight department heads normally have access to me," says Klauk who has learned to live with help and advice from all corners of the Tour. "But during tournament week, I

take orders and suggestions only from the tournament director. Otherwise we'd have complete chaos."

Superintendents from all TPC courses had been meeting informally during the annual GCSAA Conference & Show since 1987, but this year the group of 30 superintendents, builders and designers affiliated with the Tour had a formal agenda on the Thursday and Friday before the show opened.

And they met again late Monday to compare equipment notes after the show closed.

During the formal meetings before the show, the group discussed a variety of topics, especially budget preparation.

"At a lot of courses, the budget is just a guideline. With us, it is the rule," says Klauk, becoming noticeably more intense. "A TPC superintendent does *not* go over budget. And there are no contingencies. If you have to spend more than you planned in one area, then you are expected to make it up in another.

"A lot of people seem to think that

because we are part of the Tour, we don't have to worry about how much money we spend. Nothing could be further from the truth."

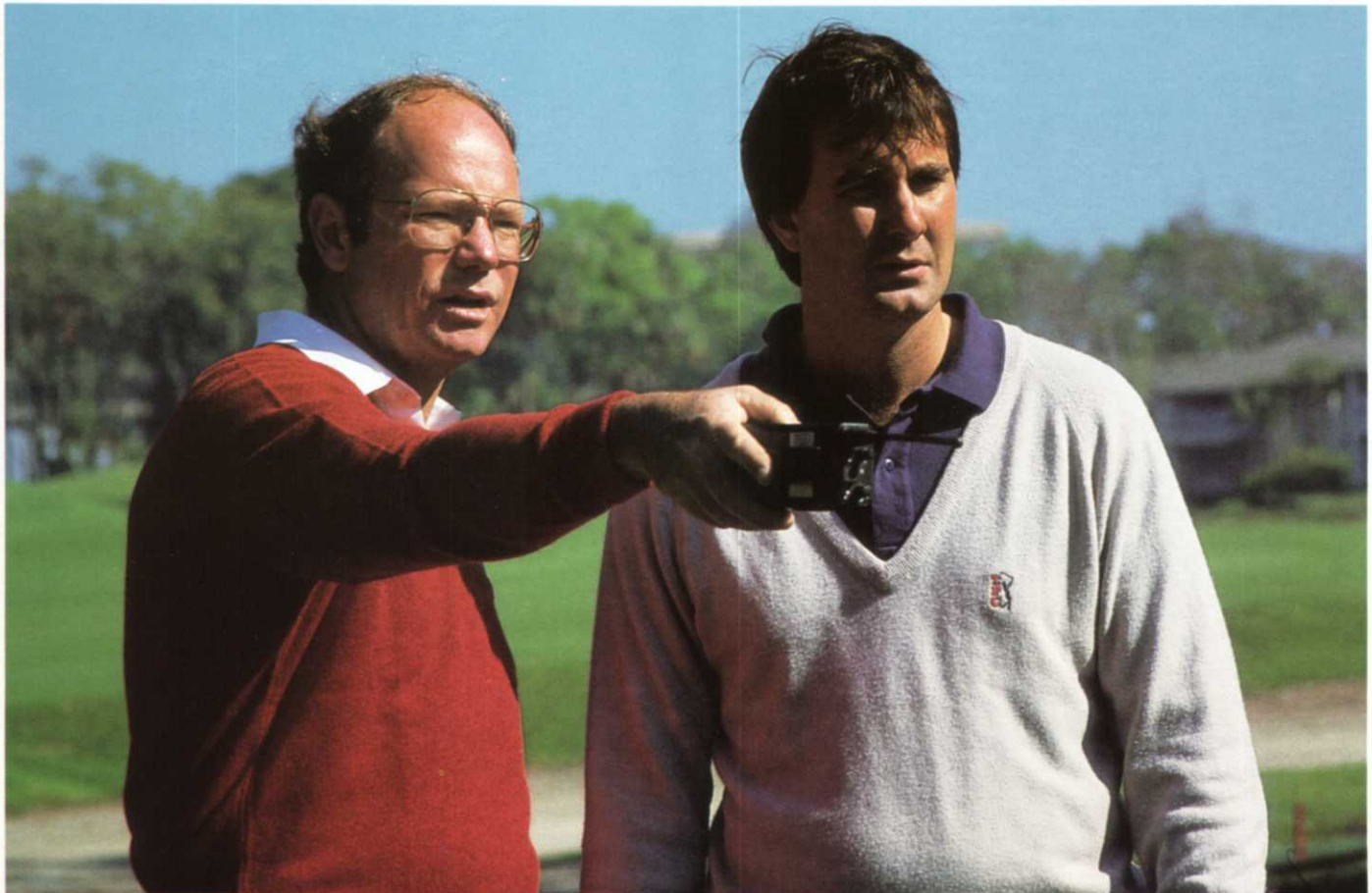
Budget presentation is one of two areas in which Klauk said he wished he could have received more formal training, either before he was graduated from the University of Florida in 1972, or at some point shortly thereafter.

"I knew how to *prepare* a budget, but I didn't know how to *present* it — how to justify every single item," said the man whose first job after graduation was with Pete Dye, building and growing in the North Course at the Johns Island Club in Vero Beach.

The other training he would have liked was in personnel management.

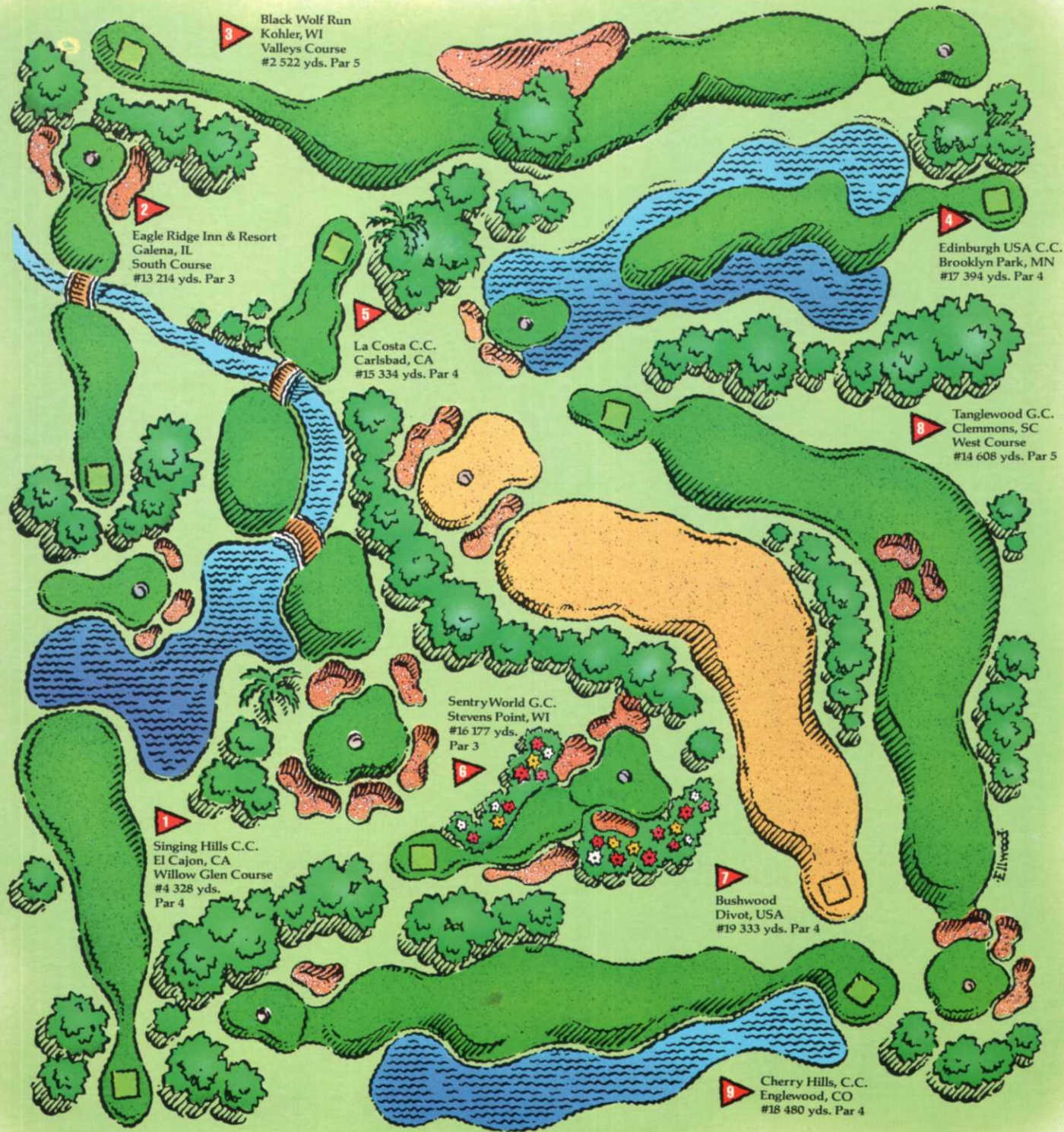
"I made too many mistakes early in my career that could have been avoided if I had had more experience in supervising a crew.

"Lake City has the right idea by requiring their applicants to work a year on a golf course before entering the program and then to do two summer



DANIEL ZELAZEK

Klauk and Bob Clarkson, assistant superintendent for the Stadium Course, discuss preparations for the Players Championship.



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internships, but even that is not nearly enough to become an assistant superintendent.

"I think young graduates, whether it's Lake City or the University of Florida or anywhere, should work at every job on the golf course before becoming an assistant superintendent.

"And I mean really *be* the irrigation tech and spray tech and then crew foreman, not just play the role for a couple of weeks."

Public relations is another skill which Klauk says is vital for professional advancement.

"I have given more than a dozen press interviews this week alone," he said in the pre-tournament interview with *The Florida Green*.

"Our organization (GCSAA) has done an outstanding job in making the media aware of our profession. For years, we have been getting all the blame and none of the credit. That's beginning to change but a superintendent today has to know how to deal with the exposure we've been getting."

Maintaining a resort course is largely

a public relations job, Klauk maintains.

"It's communication. That's where it starts and that's where it ends.

"For instance, we have to notify the hotel far in advance when we plan to aerify or carry out other procedures that make playing conditions less than ideal.

"And the weather may not cooperate.

"Now if a player comes in expecting the greens to have been aerified a few hours before his round and they haven't been, he's happy.

"But not the guy who gets caught the other way.

"If you're at a private course and you inconvenience the members one day, you can make it up to them later when results of your program pay off. Not so for the resort guest.

"He's paid an awful lot of money for one or two rounds and if they're not enjoyable, he's not going to be very happy.

"And as a player I can relate to that."

One reason the TPC at Sawgrass attracts so many players willing to pay

so much for one round is its beauty.

"My favorite scene is number 11," he says.

"The most enjoyable part of my job is being outside. We have a real nature-oriented course. We have osprey flying around and during winter, we have nesting bald eagles.

"This is a beautiful place."

On April 2, after Klauk had recuperated from the tournament and attended a meeting with other TPC supers on the new computer program for golf course maintenance being written specifically for them, he and Beman flew up to Augusta for a pre-Masters view of the Augusta National.

"It's perfect," he said, a touch of awe in his voice. "You couldn't tell that a golf ball had ever been there. There's not a divot or a ballmark to be found.

"Of course, anybody can have a picture-perfect golf course if nobody plays it. I wonder what Augusta would look like if it got 48,000 rounds."

As Daniel Zelazek's photographs attest, the TPC at Sawgrass looks pretty good. ■

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61st INTERNATIONAL
GOLF COURSE CONFERENCE & SHOW
FEBRUARY 19-26, 1990



DAVID BAILEY

Best overall publication

Dan Jones, left, retired editor and publisher of *The Florida Green*, accepted the GCSAA's award for best overall publication from Clay Loyd, GCSAA director of publications.

Top superintendent training

John Piersol, center, chairman of Lake City Community College's School of Golf Course Operations, talks to a prospect. Of 10 GCSAA scholarships awarded this year, three went to LCCC students.





DAN JONES

Welcome to Florida

Former FGCSA President Paul Turcotte and Executive Secretary Marie Roberts occupied the host booth for six days.



DAN JONES



DAN JONES



Largest Donation

FGCSA President Joel Jackson, center, renewed the state chapter's membership in the Platinum Tee Club with a \$15,000 check, of which \$10,000 was earmarked for the GCSAA Scholarship and Research Fund and \$5,000 for the Robert Trent Jones Endowment Fund. He is flanked by Gary Grigg, GCSAA director, left, and Dennis Lyon, GCSAA president. Florida's was the largest donation by a chapter.

Finnished

Jarkko Landensuo, right, a senior at Lake City Community College's School of Golf Course Operations, presented GCSAA President Dennis Lyon with a souvenir flag of the Golf Course Superintendents Association of Finland during the International Reception. Landensuo, who won the GCSAA's inaugural international scholarship this year, will begin work as a manufacturer's representative in Europe later this spring.

Little things add up to big effort, says show host

"I thought it was an excellent show," said Rick Walker, president of the Central Florida GCSA and chairman of the host committee for the 61st

annual International Golf Course Conference and Show in Orlando last February.

"We really didn't have anything major to do. It was a lot of little things that added up to a big effort," said the superintendent at Orange Lake CC.

"Actually, (GCSAA Executive Director) John Schilling and his staff have their act together. It's a national show and they don't really need much help. Our main jobs were to provide local information and organize the golf."

Walker was named to the GCSAA committee in charge of overseeing the 1991 show, which will be held in Las Vegas.

Host committee members were Tom Alex,

Grand Cypress Resort; Cary Lewis, Country Club of Orlando; Brian Jenkins, Dubsdread GC; Buck Buckner, Orange Tree CC; Steve Wright, Alaquia CC; Stuart Leventhal, Interlachen CC; Larry Kamphaus, Walt Disney World; Joe Ondo, Winter Pines GC; and Cecil Johnston.

"It was probably a matter of trying too hard on our home territory," said Ondo, chairman of the FGCSA golf committee, after the local team finished out of the money in the golf championship. Carolinas GCSA won for the fourth time in five years.

Also disappointing was Cecil Johnston's withdrawal from the election for the GCSAA board of directors. Pre-election tallies had the FGCSA's immediate past president way in front in a five-man race for three vacant seats but an unplanned job change forced Johnston to bow out.

Gerald Faubel of Saginaw, Mich., was elected president and Stephen Cadenelli of Jackson, N.J., is the GCSAA's new vice president.

Three of 10 GCSAA scholarships went to Florida students, including the inaugural international scholarship, which went to Jarkko Landensuo. The other winners were Mike Greninger and Michael Crawford. All are students at Lake City Community College.

Florida superintendents contributed \$15,000 to the Platinum Tee club, the largest donation from any chapter, and *The Florida Green* was named best overall chapter publication. ■

Notes from GCSAA headquarters...

Congratulations to you and all of the golf course superintendents in the Florida GCSA for their wonderful hospitality they extended to their fellow superintendents during the annual GCSAA conference in Orlando.

You certainly extended yourselves and provided your guests with true southern hospitality. I have never experienced a group effort on behalf of golf course superintendents anywhere as you have just demonstrated.

All superintendents in Florida deserve to be very pleased. You certainly made GCSAA proud.

Gerald L. Faubel, CGCS
President, GCSAA

I want to thank you for the beautiful framed cover of *The Florida Green*. This will provide a warm reminder of my tenure as GCSAA's 53rd president. It will also remind me of our outstanding conference and show in Orlando.

In my opinion, this conference and show was the best ever and a significant measure of the credit goes to the Florida Golf Course Superintendents.

Dennis D. Lyon, CGCS
Past President, GCSAA

I would like to offer our sincerest thanks and appreciation for your part in our 1990 Conference and Show in Orlando.

John M. Schilling
GCSAA Executive Director



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'You could have knocked me over with a feather when the votes were counted'

Superintendent convinces Country Club of Orlando's members to renovate their Donald Ross greens

Cary Lewis, CGCS, had a problem.

Somehow he had to convince the 700 members of the Country Club of Orlando to give up their 70-year-old Donald Ross golf course for nearly half a year... and pay more than half a million dollars for the privilege.

That's what it takes to completely rebuild 18 greens to USGA specifications, rebuild five tees, fix some poorly drained fairways and update part of an irrigation system.

"Cary did a magnificent job of selling the program," says Dan Ruffier, former CCO president currently serving his sec-

ond tour as greens chairman. "He ran a year-long education campaign with the members and when we finally did a dog-and-pony show for them, they bought it."

"I had a good feeling going into the membership meeting last May," said Don Estridge, CCO general manager and Lewis' boss. "But you could have knocked me over with a feather when the votes were counted."

Lewis, Ruffier and Estridge, with some help from USGA Green Section agronomist John Foy, received the approval of 97 percent of the members to proceed with the renovation project in the spring and summer of 1990.

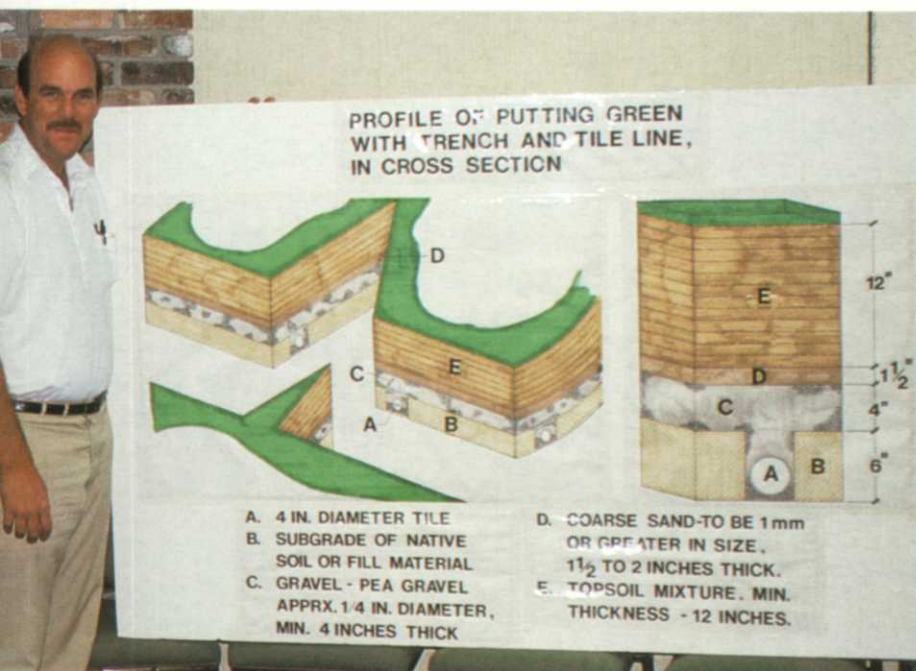
"By the time it actually came to a vote, the only real question was whether to do it all at once, or do nine holes at a time," Ruffier said. "The members decided to bite the bullet and get it over with, rather than be inconvenienced for 18 months."

But there's more.

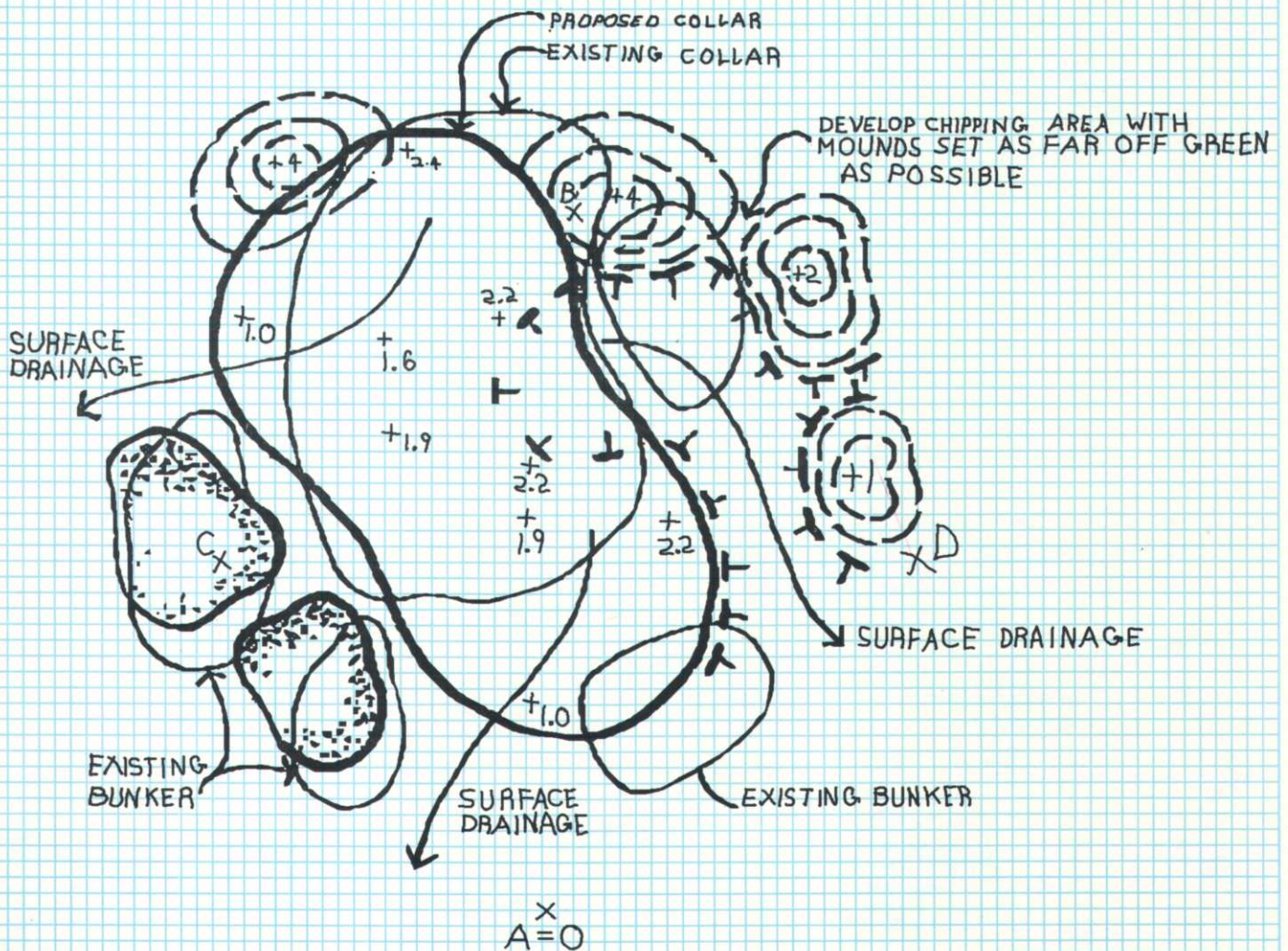
Four months after the members approved the greens renovation, the architect selected for the project convinced first the selection committee, then the club's board of directors, and finally the entire membership to restore some Donald Ross character to the course by reworking the bunkers and surrounds.

That upped the ante to about \$800,000, including lost revenue to the club and head professional.

"I told them that they would not get the best value for their money if all they did was re-core the greens," said Brian Silva. "So many changes had been made over the years that there were only five or six greens that retained the Donald Ross character."

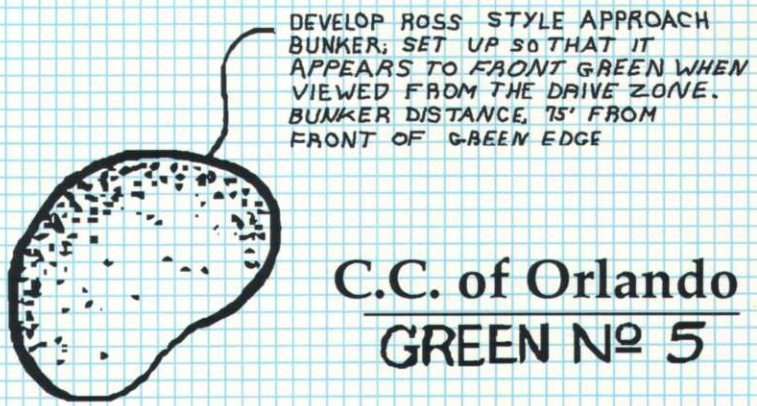


Cary Lewis, CGCS, explained the USGA greens construction method at several "dog-and-pony shows" for members of the Country Club of Orlando.



NOTE:

1. CUT LEFT SIDE BUNKERS INTO PAD OF GREEN, SETTING THEM SO AS TO NOT BLOCK VISIBILITY OF GREEN AND ALLOW SURFACE DRAINAGE BETWEEN BUNKERS
2. GREEN'S ABILITY TO RETAIN GOLF SHOTS IS ENHANCED BY A STRONG PITCH/SLOPE TO FRONT IN FIRST HALF OF GREEN & STRONG PITCH COMING OUT OF SWALE IN BACK HALF OF GREEN



DEVELOP ROSS STYLE APPROACH BUNKER; SET UP SO THAT IT APPEARS TO FRONT GREEN WHEN VIEWED FROM THE DRIVE ZONE. BUNKER DISTANCE, 75' FROM FRONT OF GREEN EDGE

**C.C. of Orlando
GREEN No 5**

SCALE: 1" = 25'
DATE: 10 August 1989

Silva, whose partner Geoff Cornish co-authored *The Golf Course*, the definitive history of golf-course architecture, was hired for the CCO job at least partly because of his emerging reputation as a major Donald Ross scholar. (Page 64)

"It's all right to talk about Donald Ross having designed your course, I said, but right now you don't have much Ross character on your golf course, and I think you should change the direction of your project to instill it.

"It was an incredible decision that they decided to go along. How many clubs did you ever hear of that would close their course for five months? And to start with one goal and then have someone come in and tell them they should spend more money and do more work. . . well it's unique.

"They really deserve a great deal of credit."

Although it is not likely that many clubs ever will choose to shut down completely for five months or more, the CCO renovation project is a textbook case of effective communication.

The Problem.

There never was any doubt that CCO's greens were in trouble.

Contaminated turf often threw putts off line during the vigorous growing season, but the real problems occurred in winter when the bermudagrass went dormant.

"There were too many times that the overseeding just wouldn't take," said Ruffier. We would be putting on mud pies."

CCO members found their greens particularly irksome after playing at some of Orlando's newer private clubs, particularly Isleworth and Lake Nona.

"We have 700 active golfing members, only 18 holes and Donald Ross greens that started small and have grown even smaller over the years," says Ruffier. "We have more than twice as many rounds as the clubs to which our greens were being compared and our greens are much, much smaller. They simply were taking a beating."

In May 1987, for the first time in several years, the club asked the USGA Green Section for an official visit and

evaluation of the course and its management practices.

"The overseeding had been unsuccessful," recalls Foy, the USGA's chief agronomist for Florida. "I found very poor soil materials with contaminated bermudagrass.

"We sent several soil samples to the lab in Texas and the analysis confirmed that the greens had very little chance unless they were completely rebuilt."

But the members weren't convinced that renovation was the answer. They had renovated the greens twice in the past three decades and the problem persisted.

Many felt the solution lay in management, not structure.

Enter Cary Lewis.

The Campaign

Lewis, a 1977 graduate of Lake City Community College's School of Golf Course Operations, was one of a handful of golf course managers invited to CCO to discuss the golf course situation.

The year before, Lewis had left Fort

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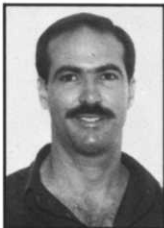
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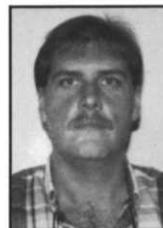
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KIEFFER/JANLARK

Detailed plans for the project included haul routes, mixing sites and estimates of damage that will be caused by the construction project.

Myers, where he had been in charge of two clubs — The Vines and Fiddlesticks — to go into business for himself. Using infrared photography, he was able to spot drainage problems and the onset of many diseases long before they became evident to the naked eye.

"The invitation from the Country Club came at the right time," says Lewis. "My business was undercapitalized and I truly missed being a golf course superintendent. I had already decided that if an opportunity arose at a truly private club, I would look into it."

So Lewis, who broke into the business by building golf courses first for General Development Corp. and then Tom Fazio (Windstar in Naples), was given a copy of John Foy's report and told to drive around the course.

"They said that if I was invited back for a second interview, I was to bring my own analysis of everything that needed to be done to put the course in the best possible condition," Lewis recalls.

"I thought I wouldn't get the job because I came on too strong about the capital improvements that were needed," said Lewis, recalling his sec-

ond interview. "They asked if I would take the job without a commitment to the capital program and give it my best shot for one year."

Lewis' best shot did wonders in many areas, but he wasn't able to turn the greens around, despite five aerifications and some improvements to drainage and irrigation.

"During that year, I did everything I could to explain to the members that the problem was with the underlying structure," Lewis says.

"Invariably they'd say, 'But we just re-did the greens 10 years ago. If it didn't work then, why will it work now?'"

And then Lewis would go into high gear with a sales pitch for the USGA's specified method for greens construction.

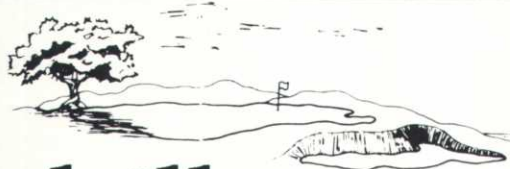
"I explained that the previous renovations had not followed USGA specifications because nobody in Florida paid too much attention to them until recently," Lewis says. "Architects and builders thought they weren't necessary because of our sandy soil."

[Ed. note — The first complete set of USGA-spec greens in Florida were installed at Atlantis GC in 1987.]

"If the greens had been reconstructed to USGA specifications, they would be doing fine now," he said.

Lewis has full membership privileges ("I even get to pay my bill, just like everyone else," he says sardonically) and tries to squeeze in rounds with other members once or twice a week.

During those rounds, instead of hoping his playing partners would not notice flaws in the greens, Lewis



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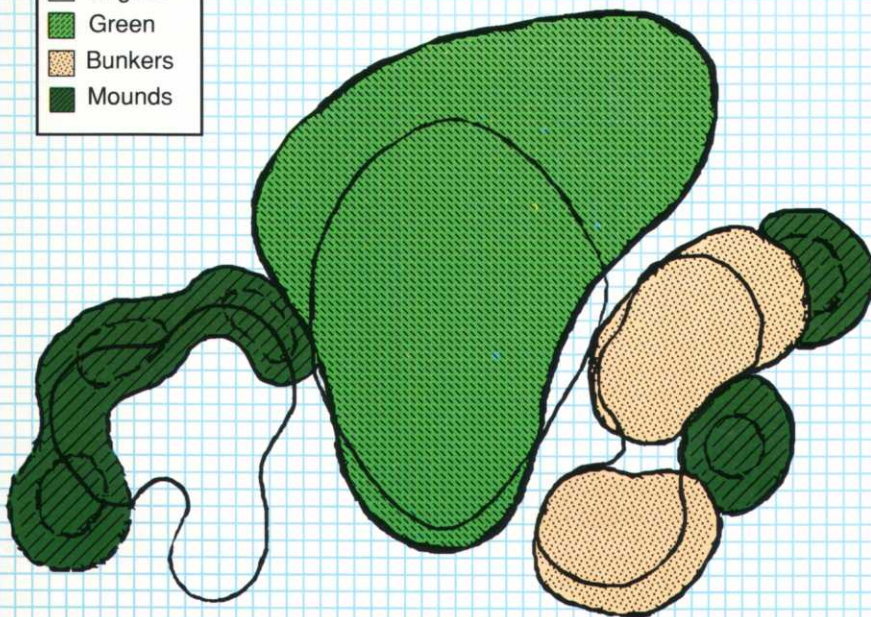


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No. 1 — Lots of Ross character left

"The current green is a good example of a Ross-style plateau green that bleeds off to the left and right rear. The proposed green would restore the green to its former size, extending the green to the left rear, rear and right rear. This would restore some very strategic pin positions. The right front bunker would be re-cut into a Ross pair that sets against the fill pad of the green so as not to restrict visibility of the putting surface. The left bunker would be re-worked into a Ross-style chipping area maintained at fairway or apron height — a good precursor to a classic Ross hazard that we want to repeat throughout the course."

-Brian Silva



pointed them out. . . and his recommended solution. "I had 18 sales opportunities on each round," Lewis says.

He also used his column in the monthly club bulletin to talk about the greens and to discuss the USGA construction method.

And he placed a huge artist's rendering of a cross-section of a USGA green where everybody could see it.

Last March he got a break. The board of directors authorized him to spend \$30,000 to rebuild the practice green to USGA specifications.

"I knew that was my chance, but I had to move quickly," Lewis recalls.

He asked Central Florida Turf, a construction firm with whom he had worked previously, to build a USGA-spec green on a turnkey basis. . . in 30 days.

"I made sure they realized that my ability to sell renovation of the other 18 greens hinged on the success of this project," Lewis said.

"I videotaped the whole process so I could actually show the members what a USGA green looked like, although I never had to use the tape. The practice green is right by the clubhouse so we had lots of sidewalk superintendents."

The green was completed just before the club's annual "Town Hall meeting," an open forum a week before the annual membership meeting to discuss items on the agenda.

That's where Lewis, Ruffier and Foy gave the first "dog-and-pony show," as general manager Estridge calls them. The trio discussed the history of the 70-year-old course's greens, the soil analyses and what they meant, and the USGA construction method.

A week later, they repeated the process at the meeting that counted and members responded with a 97 percent vote of confidence.

The bonus

A nine-member blue-ribbon committee including Lewis, Estridge and players of all ability levels was then appointed to find an architect to oversee the renovation.

Of three finalists, Silva "had instant rapport with the committee," recalls Estridge. "He seemed genuinely excited about the project and its pros-



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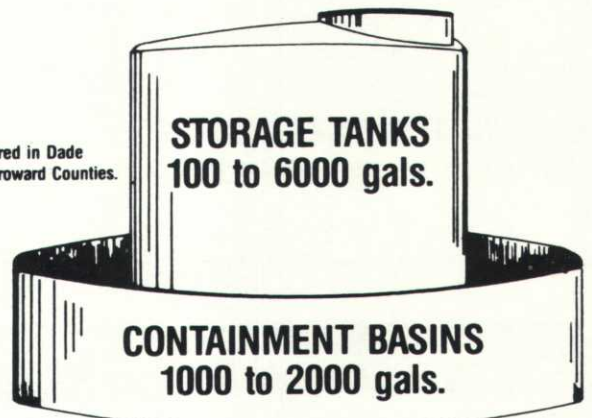
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pects.”

But, like Lewis before him, Silva feared he would not get the job because he pushed so strongly for expanding the project to include restoring the Ross character.

But also like Lewis, Silva is a good communicator. A scholar who frequently delivers a five-hour lecture on the history of golf architecture— with Ross as the centerpiece — he had his own dog-and-pony show ready for the membership.

By the time he was through, the members were as excited as he was. Go to it, they said. We’ll spend the money.

The plan

“This is a major project,” Silva says with emphasis. “I’ve never rebuilt 18 greens on any golf course before. There are not too many clubs that are able to make a decision of this magnitude and go ahead and do it.”

Having more than eight months to prepare for the project is an advantage, Silva said. In addition to getting all the

‘These people are giving up their course for five months. They have made a massive sacrifice. We owe it to them to have it ready for them when we said we would.’

permits, locking in the contractor, Silva and Lewis had time to work out a detailed schedule.

“Time is so critical. A day slips here and there and then a week slips away and it’s very easy to let that time pass by and not miss it. And then suddenly you realize it’s almost time to plant and you’ve still got nine greens that are not at subgrade.

“We need to compare our progress with the schedule at least once a week. These people are giving up their course for five months. They have made a massive sacrifice. We owe it to them to have it ready for them when we said we would.”

As it did with the practice green,

Central Florida Turf will provide a turnkey operation on the greens and surrounds. The company will work directly with Silva, who plans to visit the course one or two days every week.

“For me, this is an important job. I’m treating this just like a new course,” he says.

“Cary will be my quality-control engineer.”

The greens will be built in weekly stages, with four greens at a time in each stage.

By the third week, Silva should be able to look at the final float on the first four greens, the rough subgrade on the second four and the set-up staking on the third set.

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"The first two stages are critical," Silva says. "After the subgrade is shaped, the rest is pretty much mechanical. Either you do it right or you don't.

"But shaping the subgrade, that's where the art is."

"We're working with a contractor who has a history of doing outstanding work — quality work. That doesn't mean we won't disagree at times — and there probably will be a lot of arm-waving on the first two greens until the shaper understands exactly what I'm looking for, but I would like to think that our final goals are exactly alike: we want to do a good job.

Some things can get in the way of the most talented people in pursuit of the loftiest goals, however.

"We can't control the weather," says Silva. "Cary's abilities as God are limited."

"And we really don't know what we're going to find under five, six and seven," pipes in Lewis. "They were built over a cypress swamp. The story goes that the land was cleared, trees were dropped and they put fill on top of them."

"When we get to number five green, we may find that it's all muck held together by the grass," says Silva.

Lewis and his crew won't be idle while Central Florida Turf is rebuilding the greens.

In fact, he has augmented his staff by four in order to rebuild five tees, renovate parts of several fairways and upgrade part of the irrigation system.

And when they're all done, the greens will be sprigged in Tifdwarf and the tees and fairways will be planted in 419 bermudagrass.

The course should be ready for play by mid-October.

Will CCO's maintenance budget be much different once the renovation is completed?

"Not really," says Silva. "His maintenance program should be more predictable."

Something else that had better be predictable is the putting surface, says Ruffier. "Cary's butt's on the line on this one and he knows it."

"I'm ready," says Lewis.

Work begins April 23.

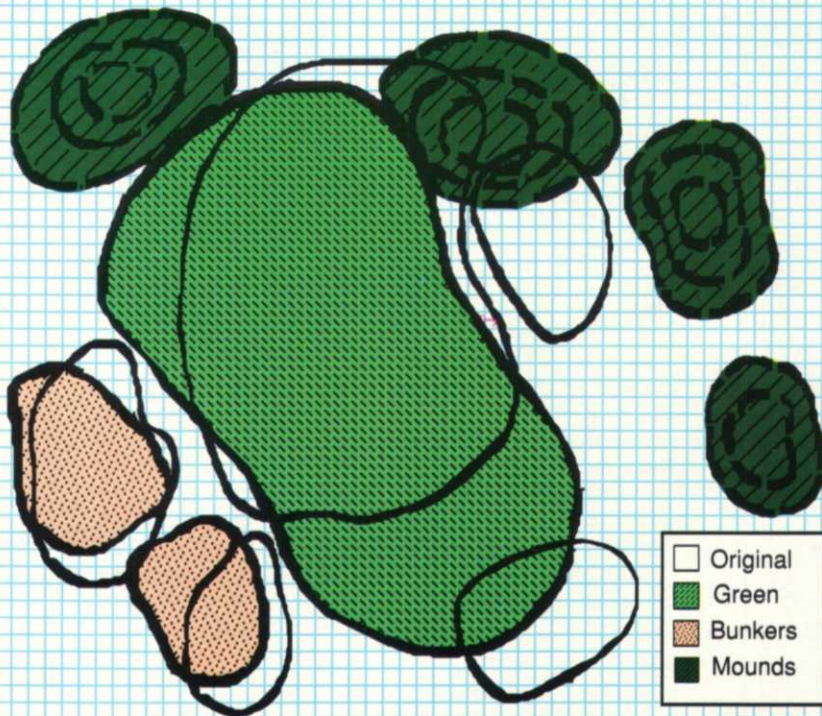


WIEFER/IANCARK

No. 5 — No Ross character here any more

"The goal here is a completely redesigned green that reflects a couple of Ross characteristics. (See below.) First of all, the left rear portion of the green plays up on a mound and this characteristic, combined with an exaggerated back-to-front pitch on the first half of the green, seeks to improve the shot-holding characteristics of the new green when compared to the old. A Ross-style chipping area, replete with a small area on the right side of the green that directs balls to the close-cut chipping area, adds interest to the green. Bunkers left are re-cut more in a Ross style with the final touch being a Ross approach bunker set some 75 feet short of the green. This bunker is detailed to appear as though it immediately fronts the green and will result in quite a few approach shots falling short as players try to just clear this 'fronting bunker.'"

-Brian Silva





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Right to know

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Compiled by GCSAA
Government Affairs
Committee and Staff

Congress recently approved the largest appropriation to date — \$27 million for fiscal 1990 — for the U.S. Environmental Protection Agency to implement the federal right-to-know act, specifically to encourage local emergency planning.

As *The Florida Green* went to press, Congress also had ordered the Federal Emergency Management Agency to prepare by March 31 a study on the major threats facing communities and local emergency management coordinators.

In 1986, the U.S. Congress enacted the Emergency Planning and Community Right-to-Know Act as a response to growing concerns about the effects of chemical

releases on communities.

The act does three things:

- Supports emergency planning efforts at the state and local levels.
- Provides citizens and local governments with information concerning potential chemical hazards present in their communities.
- Establishes enforcement procedures and civil, administrative and criminal penalties for non-compliance.

SUBTITLE A establishes the framework for emergency planning by state and local governments by calling for the creation of state emergency response commissions and local emergency planning committees. These local panels are designed to work on emergency response plans in cooperation with representatives of facilities — including golf courses — covered by the law.

SUBTITLE B, which was designed to provide information to appropriate local, state and federal officials on the type, amount, location, use, disposal and release of chemicals, includes three reporting provisions:

SECTION 311 applies to all facilities, such as golf courses, that are subject to the Occupational Safety and Health Act of 1970 and subsequent OSHA regulations. The owner or operator of a golf facility must submit material safety data sheets, referred to as MSDS's, or a list of the chemicals for which the facility is required to keep MSDS's to state emergency response commissions and local emergency planning committees and fire departments.

Updates are due within three months after OSHA regulations require the

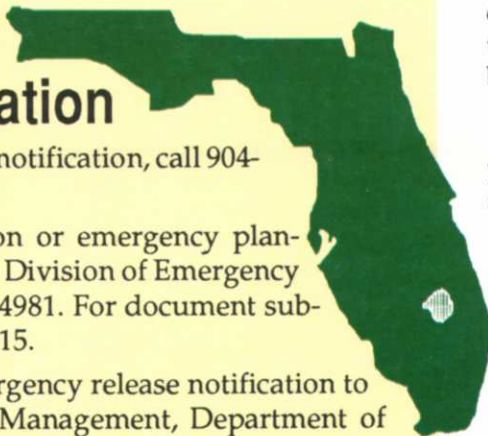
Here's where to get information

For emergency release notification, call 904-488-1320.

For general information or emergency planning notification, call the Division of Emergency Management at 904-487-4981. For document submissions, call 904-487-4915.

Submit follow-up emergency release notification to Division of Emergency Management, Department of Community Affairs, 2740 Centerview Drive, Tallahassee, FL 32399.

Submit MSDS's, chemical inventories and annual toxic chemical release forms to State Emergency Response Commission, Division of Emergency Management, Department of Community Affairs, 2740 Centerview Drive, Tallahassee, FL 32399.



owner/operator to prepare or have available an MSDS for a specific hazardous chemical. A revised MSDS must be submitted for significant new information regarding a chemical for which an MSDS was previously submitted.

Also under Section 311, EPA can establish threshold quantities for hazardous chemicals, so that no reporting is required if a facility has a below-threshold amount of a hazardous chemical.

SECTION 312 requires facilities covered by Section 311 to submit a chemical inventory form annually by March 1. The inventory forms must contain an estimate of the maximum amount of the hazardous chemicals present at the facility during the preceding year, an estimate of the average daily amount of hazardous chemicals at the facility and the location of these chemicals at the facility.

Section 312 calls for two reporting "tiers." Tier I requires only general information on the amount and location of hazardous chemicals at the facility. Tier II information, which need not be submitted unless requested by the state commission or the local planning committee or fire department, requires more detailed information about each chemical.

SECTION 313 requires EPA to establish an inventory of toxic chemical emissions from facilities that meet certain criteria. The information will be used to establish a computerized national database accessible by the general public.

Under Section 313, owners and operators of certain facilities must complete a toxic chemical release form for specified chemicals, reflecting releases during the preceding calendar year, to be submitted to EPZ and state officials annually on or before July 1.

Facilities that use more than 10,000 pounds of a single listed toxic chemical or that manufacture or process more than 25,000 pounds total of any of the listed chemicals must submit toxic chemical release forms. These forms request information on the maximum amount present at the location; treatment and disposal methods; and annual quantity released into the envi-

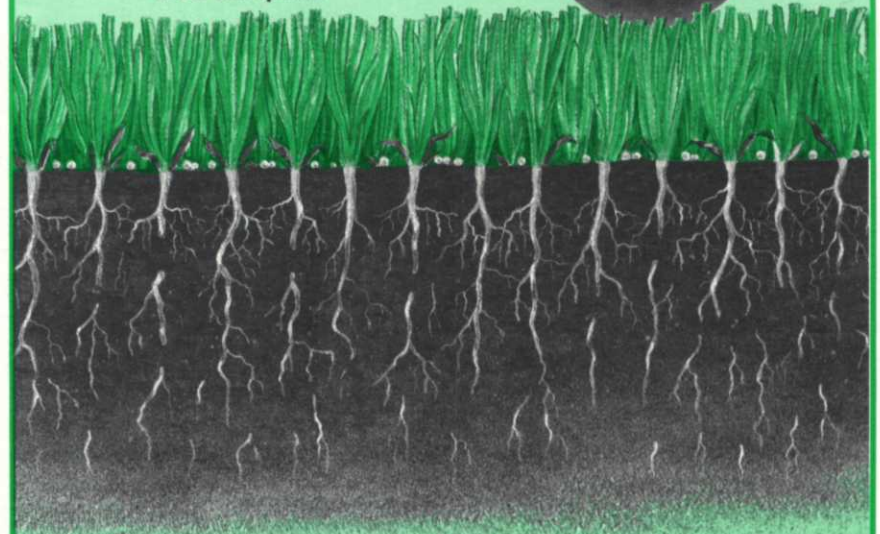
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ronment for each listed chemical or chemical category.

The initial list of toxic chemicals subject to reporting requirements consists of 329 entries, including 20 categories of chemicals. EPA's administrator may add or delete chemicals on the list based upon an agency deter-

tion of health or environmental hazards.

State governors and the public may petition the administrator to add to or delete from the list.

TITLE III outlines trade secret protection and enforcement procedures.

SECTION 322 applies to trade secret claims under reporting requirements for emergency planning and Sections 311, 312 and 313. Even if specific chemical identity of an extremely hazardous substance or chemical is allowed to be withheld as a trade secret, the generic class or category of the

Fire department is the place to start in Florida

Florida's 1985 Worker and Community Right-to-Know Law establishes the Florida Substance List for reporting purposes and requires specified employers to notify fire departments and emergency service personnel of existing toxic substances.

A 1988 statute, the Florida Hazardous Materials Emergency Response and Community Right-to-Know Act, establishes a fee system and penalty provisions.

Both laws apply to golf course operations.

The Worker and Community Right-to-Know law is administered by the state **Department of Labor and Employment Security**. The state **Department of Community Affairs** administers the Hazardous Materials Emergency Response and Community Right-to-Know Act.

The Toxic Substances Advisory Council assists in reviewing the Florida Substance List, which is maintained and distributed to employers by the state Department of Labor and Employment Security.

The list identifies substances by their chemical or common names. Generic substances or categories are excluded from the list. Substances not currently on the list that have been determined to pose a serious threat to public health or safety may be added on an emergency basis following a public hearing. The emergency revision will become permanent unless it is repealed by the legislature within a year.

Golf course operations must provide fire departments with the following information:

- Chemical name and common name of each substance in the workplace included on the Florida Substance List.

- Workplace location information.
- Copies of material safety data sheets (MSDS's).

Facilities that must report under Section 312 of Title III are required to pay an annual registration fee. The fee is based upon the number of employees and ranges from \$25 to \$2,000. However, the maximum fee is limited to \$500 for facilities that do not produce, store or use an extremely hazardous substance in excess of the threshold planning quantities established by Title III.

Additionally, a one-time fee of \$50 is required from facilities that must notify the state emergency response commission under Section 302.

The Florida Department of Labor and Employment Security may file suit in circuit court for alleged violations of the Worker and Community Right-to-Know Law. Employers found to be in non-compliance are liable for civil penalties of not more than \$1,000 per violation.

Employers will not be held responsible when injury or death occurs as the result of exposure to a substance that is recognized as hazardous as a matter of common knowledge.

The following penalties may be assessed under the Hazardous Materials Emergency Response and Community Right-to-Know Act:

- Maximum of \$2,000 for failure to report within 30 days after receipt of a notice of non-compliance.
- Maximum of \$4,000 for failure to report within 30 days after receipt of second notice.
- Civil penalties of \$5,000 for each item of false information submitted.

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chemical must be provided.

SECTION 323 requires that chemical information withheld from the public as a trade secret must be made available to health professionals for diagnostic purposes and emergency assessment activities. In these cases, the person receiving the information must be willing to sign a confidentiality agreement with the facility.

SECTION 325 provides for enforcement procedures and penalties as follows:

- Civil penalties for owner/operators not complying with emergency planning requirements.
- Civil, administrative and criminal penalties for owner/operators not complying with emergency notification requirements following the release of a listed hazardous substance.
- Civil and administrative penalties for owner/operators not complying with reporting requirements in Sections 311, 312 and 313.
- Civil and administrative penalties for trade secret claims that are ruled frivolous.
- Criminal penalties for disclosure of trade secret information. ■


Banner re-labeled for Florida

Banner, a fungicide manufactured by Ciba-Geigy, has now been approved for disease control on all bermudagrass in Florida except on golf greens when temperatures exceed 90° Fahrenheit.

The label amendment was one of several for Banner announced by the U.S. Environmental Protection Agency Jan. 4.

In addition, Banner's watering-in statement has been amended to address recommendations on a case-by-case basis. For example, to control soil-borne diseases, the new label suggests watering Banner in shortly after application. To control foliar diseases, the sprayed area should be allowed to dry before irrigating.

"These label amendments are encouraging," said Dr. Doug Houseworth, Ciba-Geigy turf and ornamental products manager for technical support. "We will continue research on difficult-to-control diseases." ■



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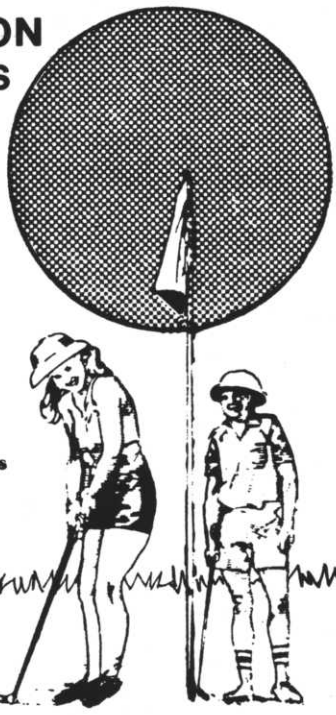
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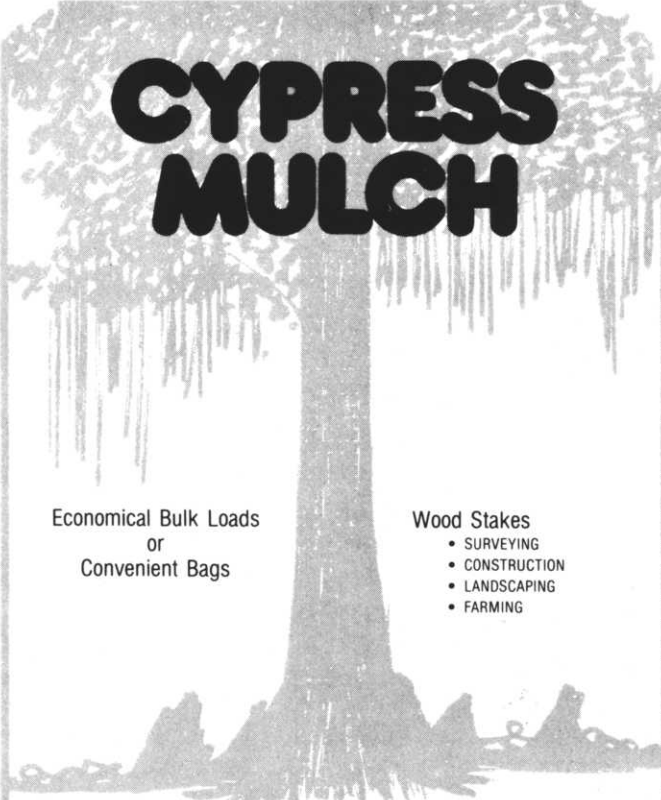
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Virginia Lehman and Dr. Milton Engelke screen tissue for heat tolerance at Texas A&M University's Research and Extension Center in Dallas.

TEXAS A&M

Whence the bent?

Researchers seek heat-and-humidity-tolerant bentgrass

By
Irene Jones

Banyan GC in West Palm Beach is one of about two dozen golf courses in the United States taking part in a USGA/GCSAA-funded project to develop a heat-and-humidity-tolerant bentgrass.

The only other participating course in the Southeast is Augusta National GC in Georgia, site of the annual Masters golf tournament.

The project, headed by Dr. Milton C. Engelke, associate professor of turfgrass breeding and genetics at Texas A&M University's research and extension center at Dallas, was begun 10 years ago and may take another decade.

"The total process of identifying desirable plants for evaluation of heat-tolerant characteristics can take up to 10 years,"

Engelke said. "Plants are bred and evaluated. Then those with the most desirable genetics are intercrossed again and re-evaluated.

"This process goes on for years, as we continue to develop disease-resistant and drought-resistant varieties that are most adaptable for warm-season growth."

The experimental plots at Banyan, established last fall, "are doing well," Engelke says. "Preliminary results look good; better than we had hoped."

The main goal of the project, according to Virginia Lehman, an Engelke team member who expects to earn her Ph.D. this summer, is "the production of bentgrasses that have heat resistance, which may include heat tolerance, heat



Many candidates end up here after going through the pathology lab.

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Soluble Potash (K ₂ O)	9%
Magnesium (Mg)	10%
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Iron (Fe)	1.0%
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Potential Acidity Equivalent 1300 lbs. Calcium Carbonate per Ton.	

Lebanon Country Club

GUARANTEED ANALYSIS

TOTAL NITROGEN (N)	24.0%
1.6% Ammoniacal Nitrogen	
11.6% Urea Nitrogen	
10.8% Water Insoluble Nitrogen	
AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)	4.0%
SOLUBLE POTASH (K ₂ O)	12.0%
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avoidance or heat escape.”

“Those main goals are no small undertaking when one looks at the facts, says Dr. Phillip F. Colbaugh, associate professor and plant pathologist at the Dallas Center. Colbaugh’s role on the research team is to identify bentgrass plants with disease-resistant qualities.

Teamwork is emphasized by Dr. James Reinert, resident director of research at the center.

“Scientists here pool their expertise and knowledge for the advancement of the total project,” he says. “Our intent is to address as many factors as possible to develop the best turf system.”

Computers also play an important role in the search for what ultimately will produce a better putting surface. Mountains of data taken from field plots are fed into the computers which analyze everything from the number of mites found on beetles to the types of elements found in the soil at each plot.

The problem with growing bentgrass in Florida “all has to do with heat and dehydration tolerance, which is part of heat stress resistance,” says Lehman.

“You are growing in very high

humidity environments with regards to transpirational cooling. The humidity actually inhibits the evaporative cooling mechanism and the plant cannot cool itself.”

“Our project to find bentgrasses that can cool themselves is very simply stated but not so simply achieved,” Engelke explains. “We have to collect bentgrasses with genetic diversity and bring those plants into our nurseries where we can evaluate them under multiple stress environments.

“In fact, we have samples collected from greens in Palm Beach County that have survived many growing seasons with no special care. We use these plants to expand our germplasm pool.

“This project is an opportunity for advancement of our industry,” Engelke continues. “You have a need (for a superior stress-resistant bentgrass) and we have the ability to produce the product you need.

“And that is very exciting for our researchers here. This program did not happen overnight. The breeding program was established in 1980.

“Now 10 years down the road, we are beginning to see results.”

RESEARCH NOTES

By Darcy Meeker

Bacteria kills the nematodes, but it's tough to grow

A recent report in the *Wall Street Journal* interested several golf course superintendents. The story had it that one Bert Zuckerman, a tomato researcher at the University of Massachusetts, was looking at a bacteria to control root-node nematodes in tomatoes.

At press time, Dr. Zuckerman was off in Puerto Rico doing a field test, but at the University of Florida’s Institute of Food and Agricultural Sciences in Gainesville, Drs. Don Dickson and Grover Smart were proceeding with FTGA-sponsored research on bacterial controls for sting and lance nematodes, the two major nematode parasites on turf grasses.

“These two feed on the outside of grass roots,” Dickson said. “The root system becomes very abbreviated so the plant can’t take up nutrients.

“This is a great big problem for Florida’s golf courses. They all have to practice some sort of control, treating with nematicide once or twice a year with 15 to 20 pounds of active ingredient (organophosphate) per acre.

“Obviously we need some options. That’s a heavy chemical load to put into soil. We would prefer not to have to use such high doses.”

Dickson says scientists have found *pseudomonad* bacteria specific to the two pest nematodes. The bacteria get in roots and keep the nematodes out, perhaps by producing repellent chemicals.

There’s just one problem, says Dickson.

“This bacterium cannot be mass produced. The Beltsville group (USDA researchers) has it growing and sporulating in media, but very slowly.”

At IFAS, Bob Cox has been able to grow it vegetatively on *ascaris* (round worm) media, but hasn’t gotten it to sporulate, which it needs to do so it can be used as a pesticide.

What they're looking for... and how they go about it:

Researchers at Texas A&M have not yet found the ideal bentgrass plant, but they know what they’re looking for. In order of importance, its characteristics:

1. Stress (dehydration, heat) resistant
2. Disease resistant
3. Good color
4. Fine textured, uniform, dense
5. Good survivor without a lot of fertilizer or water

Each candidate goes through a five-step evaluative process:

1. **Plant preservation:** the new plant is established in the greenhouse and then vegetatively divided for inclusion in greenhouse, laboratory and field studies.
2. **Field assessment:** growth, turf

quality, wear tolerance to a traffic machine and compaction are evaluated.

3. **Greenhouse assessment:** root growth characteristics and disease resistance.
4. **Laboratory assessment:** High humidity incubation at 100 degrees Fahrenheit for 16 hours to pre-stress plant; high temperature water bath for tissue heat-tolerance test; determination of the precise temperature at which cell breakdown occurs.
5. **Seed production:** Strongest and best plants go on to Oregon where they are cross-pollinated with other strong, desirable plants. Resulting seed hopefully will have the best characteristics of both parents.

"We're a long way from the answer," Dickson said. "This organism is very host-specific. In our preliminary work, we took soil from areas infested with nematodes. We dried it and found that the soil can kill nematodes, but after we autoclave the soil, which kills the spores of the bacteria, the soil no longer inhibits the nematode."

The fact that these anti-nematode bacteria are so host-specific may make them hard to produce, but it's still a good thing: it means the anti-mole cricket nematode is safe.

IFAS nematologist Smart says, "The nematodes we're using have an extra cuticle, so they have an extra layer of protection but the bacteria don't seem to attack them anyway."

Smart said he has been studying *Pasteuria penetrans*, a bacteria that attacks root-node nematodes such as those that afflict tomatoes.

"The trouble has been growing sufficient quantities because we shouldn't grow it in vitro," he said.

The pattern runs like this: spores of *Pasteuria* bacteria attach to a

nematode's skin and send a penetration peg into its body. In the soil, the bacteria are in spore stage. Eventually the growing bacteria fills the nematode's body — this is the vegetative phase of growth — then it goes into spore stage. The bacteria can't move around on their own. But thousands of spores emerge from one nematode host.

"If enough spores attach to a juvenile nematode, it may die outright," Smart said. "If the numbers are fewer, the nematode may go into plant roots and begin developing before it dies. If the spore load is low enough, the female will produce few, if any, eggs because the bacteria ruins its reproduction structure."

Just to put things in perspective, *Pasteuria* are about one fourth the diameter of a nematode, but the nematode is much longer, about one millimeter.

"They are barely visible, but so thin that they're hard to see," Smart said. "You can see a bunch of them; they look fuzzy. But seeing one is difficult.

IFAS tests compost as medium for sod

Dr. Albert Dudeck at IFAS in Gainesville is testing composted organic waste as soil to produce sod and turf. He thinks it could be a boon to Florida's \$1.5 billion turf industry (76 percent of that is St. Augustine grass for home lawns).

"We're looking at a lot of things," he said, listing garbage, yard trash, tree trimmings, sludge/garbage combinations, wood chips, stable litter, mushroom compost, rice hulls, and sugarcane bagasse.

"The primary need is the mandated 30 percent reduction in landfill waste in the next couple of years."

The nutritious composted waste grows a crop of turf in three to four months rather than a year and a half. That could reduce the 75,000 acres now dedicated to commercial sod production.

Dudeck says, "It means a tremendous opportunity to use the waste.

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You can see dollar signs in their eyes right now. The production technique is commercially feasible in France, but it's never been done on warm season grass in the South.

The tricky part is more frequent, more controlled watering by misters rather than traditional irrigation. Also, the old harvesting machinery isn't appropriate.

"You move the mulch-grown sod in its entirety," Dudeck explains. "It's grown on plastic, and you roll it like a carpet to move it. It's light and only an inch thick."

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throughout the Southeast to sod suburbia.

•••

Hoelon will kill your goosegrass without yellowing your turf. That's what Bert McCarty says.

"This is the first product since 1930 to offer this kind of control," said the weed control researcher at the University of Florida's Institute of Food and Agricultural Sciences in Gainesville. "It's pretty revolutionary."

Goosegrass is a semi-annual weed in fine turf, highly undesirable on putting greens and football fields because it clumps and because it grows horizontally.

In the past, because sprays yellowed turf, many golf courses used hand labor

to pull goosegrass out.

After he read of Hoelon's anti-goosegrass success in wheat, grains and row crops, McCarty did research that helped get Florida the first 24-C (state-only) registration, allowing use of Hoelon on turf.

"Florida is the only state that has it currently," McCarty said. "Our golf courses are enjoying a pretty exclusive privilege. Hoelon is far superior to any other products available, which are materials developed in the 1930s."

The older materials require multiple applications and can discolor turf.

Hoelon (chemical name "diclofop") gives 95 percent control in one application per year at half the rate of active ingredient per acre.

"It definitely gives our guys an advantage," McCarty said.

Wayne Mixson at O.M. Scott's turf research center in Apopka recommended Hoelon be used with a pre-emergent herbicide to fight goosegrass.

•••

Mixson also reports: "We hope to have a product out by summer that

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O.M. Scott's expects to release a product that kills bahaiagrass in bermuda

will kill bahaiagrass in St. Augustine and bermudagrasses."

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But new chemicals aren't all it takes to control weeds and have beautiful greens, Mixson emphasized.

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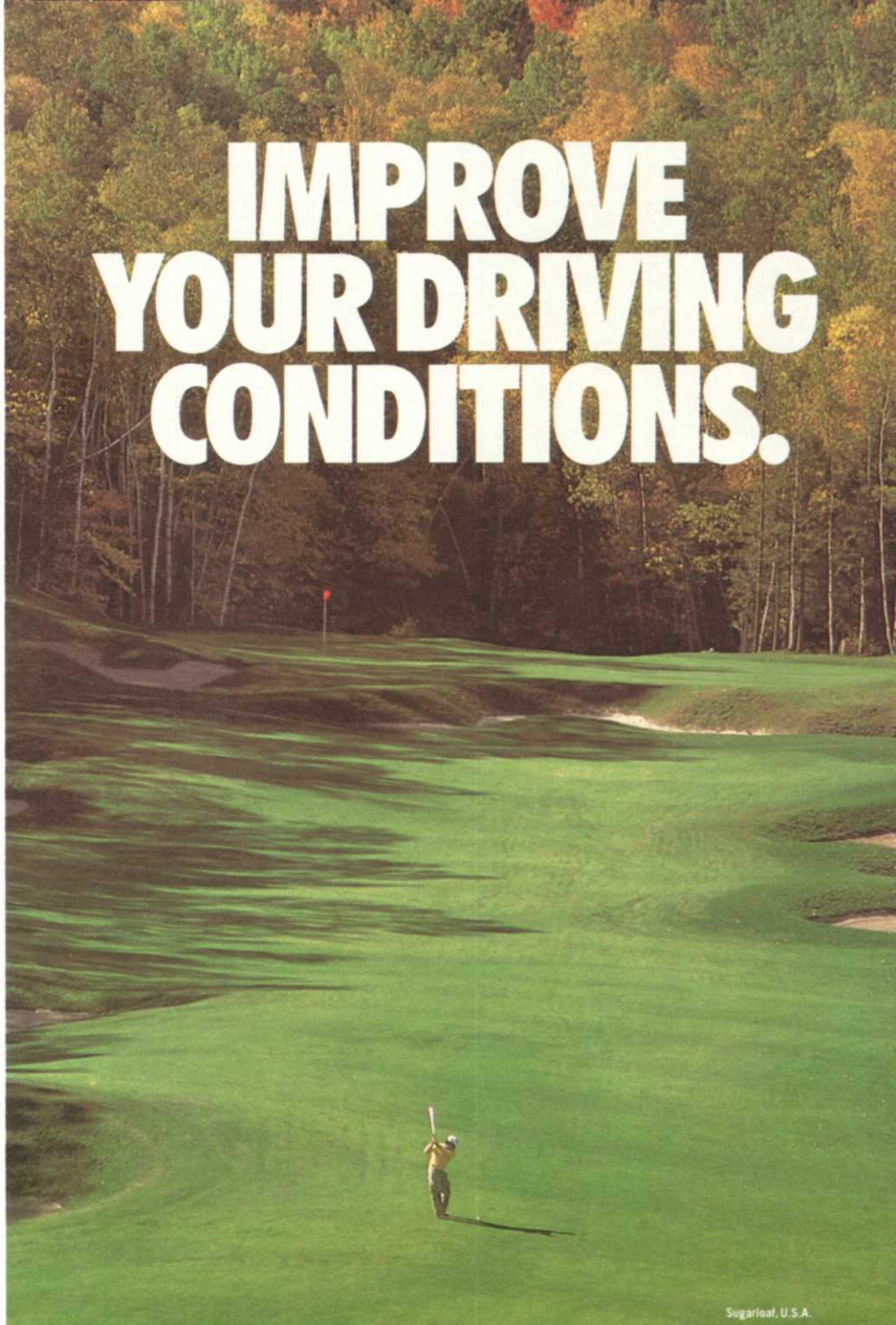
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DARCY MEEKER/IFAS

Teen wins Science Fair with mole cricket project

A project pitting a fungus against mole crickets won Donna Jaworsky top honors at the Science Fair at Palm Coast High School and for the region. Jaworsky varied strengths of the fungus for her entry in the state Science Fair in April. The 18-year-old senior's write-up will be included in the *Mole Cricket Annual Report* edited by Dr. Howard Frank, left, at the University of Florida's Institute of Food and Agricultural Sciences.

other half of the plant is roots and they're more important than the top green cover," he said. "Half of your weed control problem is solved by growing good turf."

•••

Dan Jones at Banyan GC in Palm Beach had to put up a sign to explain


the IFAS-FTGA mole cricket experiments.

"It looked like something from outer space," he said. "Now the members are 100 percent behind it, and always bring their guests to see the sign and the callers."

The callers attract mole crickets to

soil laced with one million mole-cricket-eating nematodes. Jones picked his worst mole-cricket area to be the research site.

The funny thing was, it also attracted armadillos, who went crazy over such a concentration of succulent mole cricket morsels. Now Dan put up a fence around the callers to keep the armadillos out. Most other clubs opted for a set-up that traps the mole crickets in a sand-filled bucket and allows them to distribute the infected crickets.

"Biocontrol is the wave of the future," Jones said. "If we don't get into this biocontrol, we're really going to be in big trouble. We won't have anything." 

MEET THE EDITOR



Darcy Meeker is assistant professor at IFAS of The University of Florida.



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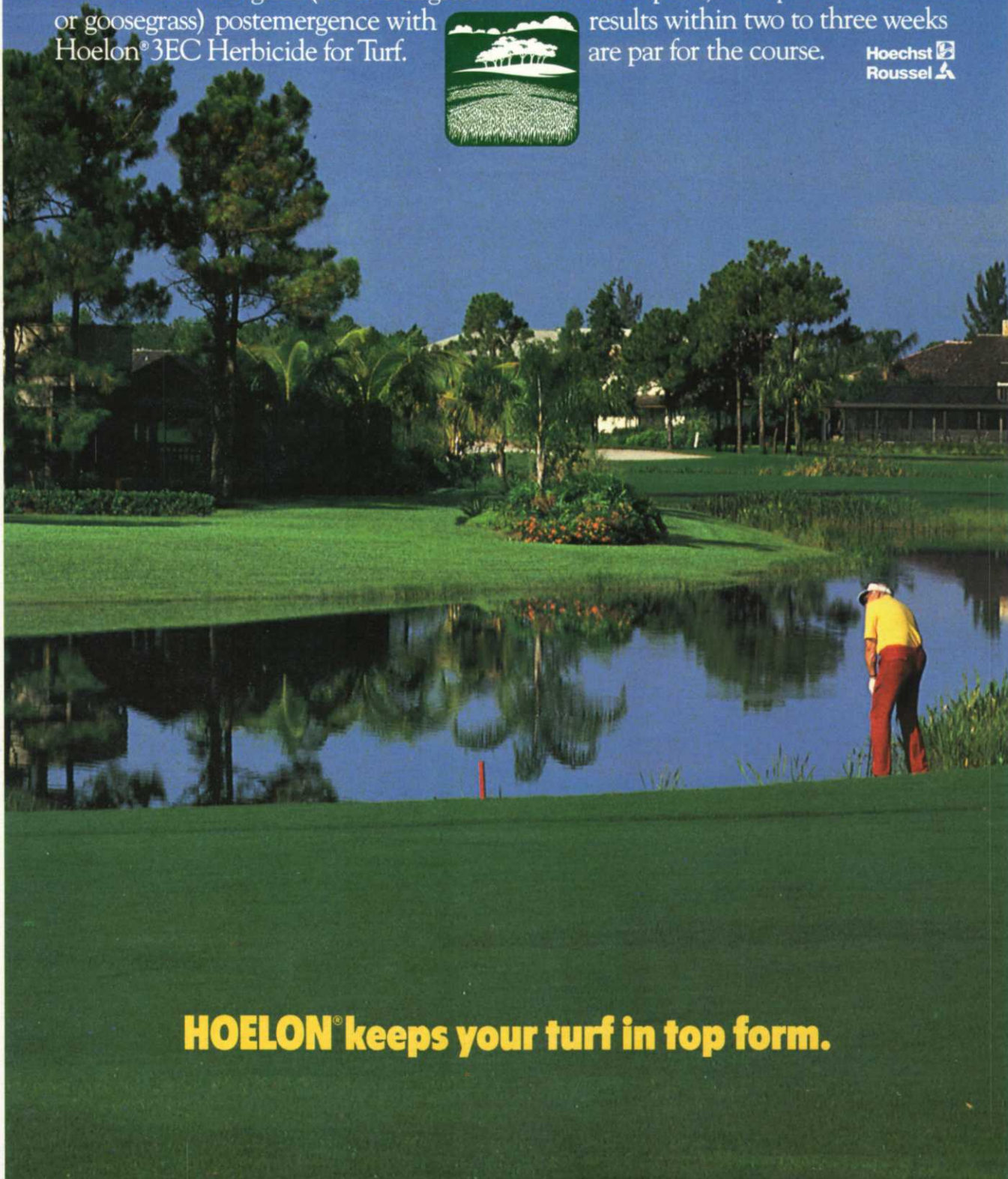
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When it comes to renting equipment...

KNOWLEDGE IS POWER

'If the deal sounds too good to be true, it probably is.'

Mike Bailey

The single most important factor is the reliability of the dealer.

Mike Perham

Planning to rent equipment for your next construction project?

If so, you're not alone. The equipment rental business has been one of the fastest-growing segments of the industry over the past six years, according to the London-based Corporate Intelligence Group, which analyzes world markets. In that span, gross receipts have nearly doubled.

But one of the hallmarks of any rapidly growing industry is its attraction to marginal operators who jump in with inferior equipment, inadequate training and questionable ethics to take advantage of a market in which the buyers often are not as knowledgeable as they could be.

"Price is a consideration in renting any piece of equipment," says Mike Perham, CGCS, superintendent at The Moorings Club in Vero Beach. "But the single most important factor is the reliability of the dealer."

"The cheapest deal usually isn't the most cost-effective," says Mike Bailey, superintendent of The Falls CC in Lake Worth. "If the deal sounds too good to be true, it probably is."

"You've got to ask yourself: 'How good is that machine?' If it goes down on your job, you're dead. How much is that worth?"

Be sure you completely understand the billing procedures of the vendor, says Bud Howard, vice president of sales with Hertz Equipment Rental Corp. Look for hidden charges in a contract.

Some renters are not aware of costs that

can be added to their rental fees for damage.

For instance, even if you have insurance, you will be expected to pay up front for damage and then wait for reimbursement from your insurance company.

For rental periods longer than a month, Perham suggests buying a rider to the course's own insurance policy to cover the equipment, as opposed to buying insurance through the dealer.

"There's a lot of paper work," Perham says, "so it usually isn't worth the trouble for short-term rentals."

Some companies offer very low rental rates but nickle-and-dime the customer on back charges — damaging the paint is one example. By the end of the year, those fees can add up to a sizeable amount of money.

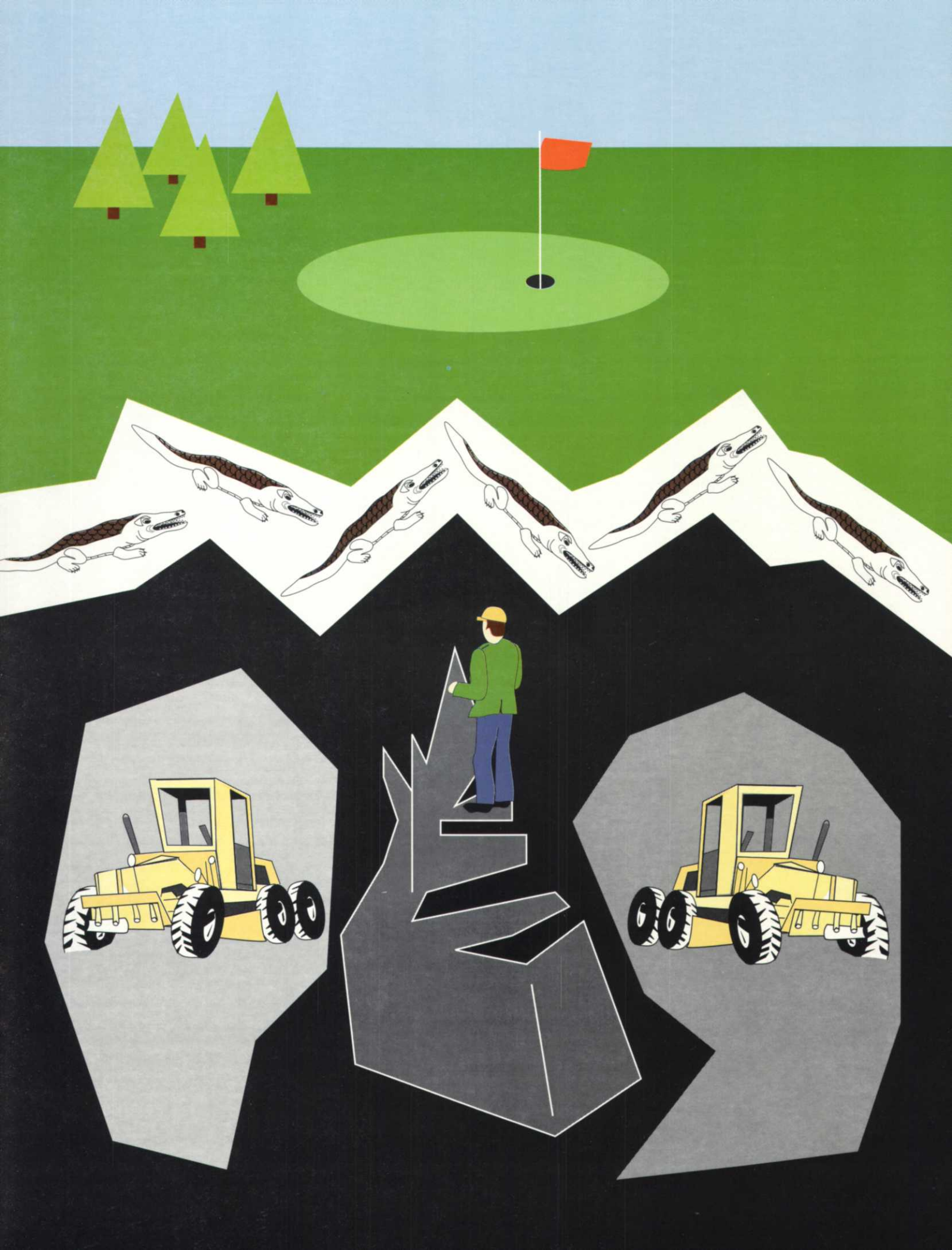
Howard also stressed the importance of inspecting the condition of the equipment when it arrives. In order to assure that you are not charged for damage you are not responsible for, he suggests taking detailed notes of the equipment's condition.

Tom Benefield, CGCS, superintendent at BallenIsles CC of JDM in Palm Beach Gardens, goes one step further.

"I always inspect the machinery before it's delivered," he said. "And I check it again when it arrives, before I let them unload it."

Typically, you are expected to return rental equipment in good condition, less normal wear and tear.

Maintenance is another factor to consider. Some companies provide around-



One company may charge \$1,800 a month for a piece of equipment and another may charge \$1,200. But if the cheaper company's equipment breaks down every other day, your savings could vanish because of slower production.

Boom or bust, industry will grow

The U.S. equipment rental industry has grown rapidly over the last six years and is showing no sign of letting up.

In 1983 the market was estimated to bring in \$7 billion to \$10 billion per year in gross receipts on leased and rented construction equipment, according to the London-based Corporate Intelligence Group, which analyzes world markets.

In 1988 gross receipts were estimated at approximately \$13 billion.

There are some 12,000 equipment rental operations across the country, including rental companies, equipment distributors with rental divisions, and contractors with rental divisions.

A survey conducted at the end of last year by Associated Equipment Distributors showed 88.4 percent of all dealers expect an increase in rental volume. All centers surveyed for the report project a positive market for 1990.

Assuming the economy remains on an even keel, AED believes equipment rental volume will increase about 6 percent in 1990, bringing rental volume up to approximately \$13.7 billion.

"A good market is, of course, fueled by more construction activity, and this is expected, especially over the coming decade," says Bud Howard, vice president for sales of Hertz Equipment Rental Corp.

"However, the industry is such that even if the economy slows down slightly, the market will remain on a good growth path since contractors will be likely to rent instead of purchase equipment."

And if the economy picks up dramatically? Contractors may be caught without enough equipment in their fleets to keep up with the additional work, and so they still will have to rent more equipment.

the-clock servicing of their equipment and some don't maintain their equipment at all. Make sure you understand the dealer's policy before you sign.

It's also important to know exactly what you need before you walk into the rental center. Some dealers have knowledgeable customer service representatives and others have order-takers.

"The biggest dealer isn't always the best bet," says Bailey, "but the dealer who has a large inventory may be able to save you some money because he stocks the exact piece of equipment you need, whereas the smaller dealer might only be able to offer a larger, multi-purpose machine that not only costs more to rent but takes longer to do the job than the specialized piece."

"The salesman's job should be to serve as a problem solver," says Hertz's Howard. "You may not know, for example, whether you would do better renting a skid-steer loader with a backhoe attachment or a skid-steer loader and a separate backhoe.


"An informed salesman should be able to help you make that decision."

Down time is the most expensive add-on to rental prices. One company may charge \$1,800 a month for a piece of equipment and another may charge \$1,200. But if the cheaper company's equipment breaks down every other day, your savings could vanish because of slower production.

Many companies use reconditioned equipment without informing their customers, according to Howard. If it's an older model, spare parts may not be readily available.

If you are involved in a complex project that requires several pieces, make sure they're all going to be available as you need them. Remember that the equipment you need may constitute the renter's entire fleet and if something happens to one machine, you could have a real problem on your hands.

"I make reservations whenever possible," says Perham.

"If the equipment can't keep your project on schedule, then it's no bargain," says Lou Conzelmann, CGCS, superintendent at Fiddlesticks CC in Fort Myers. 



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Former instructor at Lake City Community College builds a practice on his growing reputation as a Donald Ross scholar.

Key to this architect's future lies in the past



KIEFFER/JANLARK

Golf course architect Brian Silva likes to tinker with the past.

He lives in the quiet, old New England textile town of Whitinsville, Mass. His home there is a post-and-beam house built in 1759.

Silva restored all the original wood, including the low-slung, 4-by-8-inch ceiling beams. He rebuilt the original heating system — a centrally located fireplace. The wooden staircases are appropriately creaky, old quilts adorn the upstairs beds, and the kitchen sports a 36-inch Glenwood stove that looks more like 1890 than 1990.

Four miles away stands the gray Victorian wood frame house where Silva has located his five-room office. A fine old sculpted walnut table in the meeting room is covered by various blueprints. Off in one corner is a glass-fronted bookcase filled with the classic literature of his trade. And every day on his way to the office, Brian drives by the regionally renowned nine-hole Whitinsville Golf Course — perhaps the purest design work of Donald Ross found anywhere in the Northeast.

The 37-year-old native of Framingham, Mass., began his boyhood fascination with golf courses in the company of his father, John Silva.

"My dad used to be a feature shaper,"

he says. "He was in the light construction business. Dad was real handy on a D-4 bulldozer, and that's what he did for 20 years. At age 8 or 9, I was riding on my dad's lap while he ran the bulldozer.

"Geoffrey Cornish tells me that I met him before I was 10 years old. Initially, I thought I would go into feature shaping. They don't get enough credit, these feature shapers, and they are wildly, wildly talented. But like many dads, mine said, 'No! I want you to go to another level up.'

"So I decided to try golf course design."

Silva worked on golf courses during the summer and attended the Stockbridge School of Agriculture and Turf Management at the University of Massachusetts at Amherst. Cornish, who was on the faculty at Stockbridge, then urged Silva to combine turf management and landscape architecture.

So Silva went on to the four-year program in landscape architecture and finished up in the mid-1970s, just as the golf course business was enduring a prolonged slack phase.

He wrote letters of application to every architect whom he could locate. And to this day, Silva holds in high regard the few architects who wrote back.

No one offered him a job, so he returned to the University of Massachu-

By Bradley S. Klein

sets for two years of graduate study in plant and soil sciences.

Silva then took over the teaching load of former Stockbridge professor Bob Carrow, who had left to go to Kansas State and who now heads the turf program at the University of Georgia. He enjoyed teaching so much that he took a job at Lake City Community College's School of Golf Course Operations.

For three years, Silva combined classroom instruction with on-site visits to his interning students. In 1981, the Florida Turfgrass Association awarded him its highest honor, the Wreath of Grass.

In those three years, Silva got to see courses that varied markedly from those he had known back home. It was a formative experience to see the likes of Seminole, Turnberry Isle and Harbour Town, and to see so many new courses under construction.

But besides exposing him to new architectural styles, the experience enabled Silva to appreciate more than ever the design strengths of Donald Ross.

Silva had seen many Ross courses in New England. But Ross himself had devoted varying degrees of attention to these projects, sometimes paying little more than a single visit and letting his field crew, under the supervision of Walter Hatch, execute the design plans in the field.

Not so at Pinehurst No. 2, to which Ross devoted painstaking attention over several decades. Without doubt, this was his masterpiece, and when Brian Silva saw it, he knew that he had witnessed something unique.

He left Lake City in 1981 to become the USGA Green Section's northeast agronomist. In this capacity, he began to acquire a reputation as a Ross devotee, someone to whom clubs could turn for advice on restoring their Donald Ross features that might have suffered over the years.

Many of Ross's fairway bunkers were taken out in the 1930s. His greens, characteristically crowned at the top, and carefully shaped to provide ample space for a run-up shot, often became rounded off and shapeless over the years because of careless mowing. Mechanical rakes often tore up bunker

Donald Ross Courses in Florida

According to *The Golf Course*, the definitive history of golf course architecture by Silva's partner, Geoffrey Cornish, Donald Ross designed 30 courses in Florida, of which 27 still exist. The first were the Bellview-Biltmore Hotel & Club in Clearwater and St. Augustine Links South Course (which no longer exists) in 1915. The last was San Jose CC in Jacksonville in 1935.

Bellview-Biltmore Hotel & Club, Clearwater ...	1915	New Smyrna GC	1922
Bobby Jones Muni (American & British), Sarasota	1927	Palm Beach CC	1917
Brentwood GC, Jacksonville	1923	Palma Sola GC, Bradenton	1924
CC of Orlando	1918	Panama CC, Lynn Haven	1927
Coral Gables Biltmore (North)	1924	Pelican GC, Clearwater	1926
Daytona Beach G&CC (South)	1924	Pinecrest on Lotela GC, Avon Park	1926
Delray Beach G&CC	1927	Ponce de Leon CC (North), St. Augustine	1916
Dunedin CC	1925	Punta Gorda CC	1927
Florida CC, Jacksonville, NLE	?	Riviera CC (South), Coral Gables	?
Fort Myers G&CC	1918	San Jose CC, Jacksonville	1935
Gulfstream GC, Delray Beach	1923	Sara Bay CC, Sarasota	1925
Hyde Park GC, Jacksonville	1925	Seminole GC, North Palm Beach	1929
Keystone G&CC	1927	St. Augustine Links (South) (NLE)	1915
Lake Wales CC	1923	Timuquana CC, Jacksonville	1923
Miami CC (NLE)	1919	University of Florida CC, Gainesville	1921



BRIAN SILVA COLLECTION

walls.

And many clubs simply made changes in their design over the years in the name of "modernizing" and "upgrading" their courses just to keep up with the Joneses.

In 1983, Silva formed a design partnership with Geoffrey Cornish. A full-time architect with several of his own 18-hole projects in the works, Silva also received inquiries from clubs looking to rework their courses.

But here, Silva is careful to distinguish what he does from pure golf course restoration.

Despite his admiration for the work of Donald Ross, Silva does not claim to be doing restoration in the literal sense of the term. Instead, he provides what he terms a "sensitive renovation" — sensitive to the feel and concepts of Ross, but not a scrupulous duplication based upon long-lost blueprints and the way things used to be at the club years ago.

According to Silva, a golf course can be most successfully renovated when the architect is allowed the creativity

Silva does not claim to be doing restoration in the literal sense of the term. Instead, he provides what he terms a "sensitive renovation" — sensitive to the feel and concepts of Ross, but not a scrupulous duplication based upon long-lost blueprints.

to present his version of classical design principles.

Pre-eminently, this means following a principle of modestly raised greens, with bunkers placed at the base of the fill pad. It also means allowing for chipping areas and alternative routes to the greens. He is also not afraid to buck the modern trend of large, sprawling bunkers and prefers to incorporate Scottish-style pot bunkering, replete with intricate mounding.

Silva's version of classical Ross will

be on display at the Country Club of Orlando, where he will redo the 18 greens and surrounds including many fairway bunkers and approach areas.

It appears that Ross put his stamp on the CC of Orlando without having visited the site. The greens were built with locally available muck and thus developed problems of thatching and drainage. In the mid-1960s, several greens were redone by Joe Lee, so that today the course is of hybrid design. Silva's goal is to tear up the greens and



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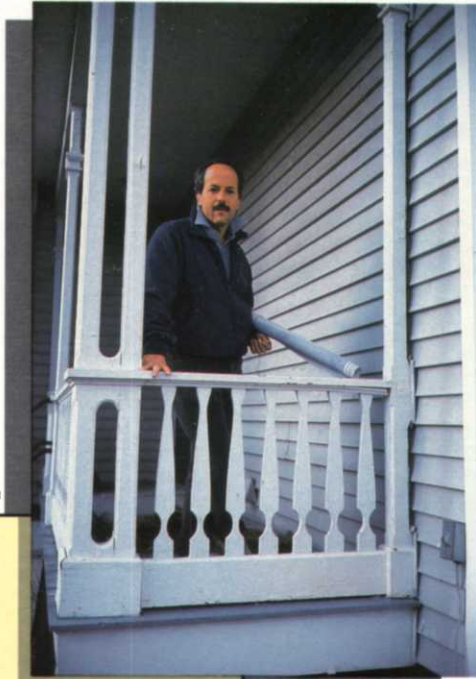


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Brian Silva restored this post-and-beam house in Whitinsville, Mass., including the original heating system — a centrally located fireplace. The house was built in 1759.



BRAD KLEIN

Silva's Florida work

Country Club of Orlando, Orlando (Donald Ross, 1918) — major renovation of greens and bunkers.

Sara Bay C.C., Sarasota (Donald Ross, 1925) — long-range plan.

President C.C., West Palm Beach (North, William Mitchell, 1970; South, William Mitchell, 1972) — preliminary work on long-range plan.

rebuild them completely, in the process bringing them as close as possible to the original putting surfaces or to what it seems likely Ross would have done with them.

To this end, Silva has worked up drawings scaled 1 inch to 25 feet, detailing the current green outline and bunkering, juxtaposed against the proposed new green and bunkers.

Accompanying each green site is a narrative explaining the intended look and feel of the putting surface and surrounds. He is meticulous in his redesign work and strives to create the ingenuity of putting, chipping and strategic approach shots that characterized classical courses.

As with any creative man, Silva has

'You'll always stir up a controversy about course design. But Silva's renovation is successful because it made Wampanoag a more exacting course while not taking its toll on maintenance requirements.'

-Robert Johnston, Superintendent

his critics.

At the Wampanoag CC in West Hartford, Conn., Silva renovated a Ross course that already had suffered many compromises in its 60-year

history. With all the redesign work going on in New England at the time, it was difficult finding a suitable shaper. Moreover, the membership was by no means united in its vision of the renovated course.

The greens chairman was intent on making the course more challenging, not necessarily in preserving classical design features.

When Silva's redesign was finished, many members were left with bitter feelings. Several new greens were surrounded by severe mounds or bunkers that faced into the greens — scarcely characteristic of Donald Ross. In the aftermath, several members quit the club and one — Barry Palm — started a nationwide organization, the Donald Ross Society, in part to promote the strict preservation of Ross design principles.

"You'll always stir up a controversy about course design," says Robert Johnston, Wampanoag's superintendent. "But Silva's renovation is successful because it made Wampanoag a more exacting course while not taking its toll on maintenance requirements."

Elsewhere, Silva's redesign work has been less controversial. At Interlachen in Minneapolis, Silva worked hand in hand with the greens chairman and with long-time superintendent Doug Marshall, CGCS, to recreate subtle Ross-like bunkers and greens.

Silva had some freedom to improvise and he added his own distinctive mounding. The overall effect is to have sharpened the golf course's visual impact without having sacrificed its design integrity.

As Silva admits, it helps to have a solid working relationship among greens chairman, superintendent, and shaper of one's choice.

All of those elements are in place at CC of Orlando.

Cary Lewis, CGCS, has studied Silva's plans and is excited about what they portend. And a proven builder, Central Florida Turf, has been contracted for the shaping.

Silva already has won high marks for his own design work. His Captain's Club on Cape Cod was well regarded from the day it opened in 1985. He has five other courses on the drawing board in various stages of progress, including his first new course in Florida.

For a student of the game, however, there may be nothing more important than his work on Donald Ross courses. It has not been an easy path, but Silva has learned that the best way to honor the past is not to try to do too much with it.

Bradley S. Klein joins The Florida Green as contributing editor for architecture. A former PGA Tour caddie, he is a member of the Golf Writers Association of America and writes a monthly column on architecture in Golfweek. He also holds a Ph.D. in political science and is assistant to the president at the University of Hartford (Conn.).

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Florida development picture continues to brighten, but public courses lag

Florida opened 162 new golf holes in the first quarter of 1990, including its 1,000th course, according to the National Golf Foundation.

The openings reported by the NGF and other sources indicate a growth rate of 36 new courses a year — about 10 percent of the nation's need, according to the NGF.

And if the current construction rate holds — 777 holes were reported to be under construction as of March 31 — Florida's annual growth rate could top 50 golf courses a year by the end of 1991.

Another 1,287 golf holes — the equivalent of 71.5 18-hole courses — have been reported to be on the drawing boards of one developer or another, but announced projects often fail to turn a shovelful of dirt.

Golf course architect Arthur Hills opened the most holes in the first quarter, with new 18-hole courses at Windsor Parks in Jacksonville and The Hills course at

FLORIDA GOLF COURSE DEVELOPMENT JAN 1 - MARCH 31					
Golf Holes	PVT	DAILY	MUNI	UNK	TOTAL
Planned	756	450	45	36	1,287
Under Const.	450	264	45	18	777
Opened	72	90	0	0	162
Totals	1,278	804	90	54	2,226

Jonathan's Landing in Jupiter, plus a nine-hole addition to The Club at Pelican Bay in Naples.

Steve Smyers was the only other architect to report more than one course opening: Countryway in Tampa and Wentworth in Tarpon Springs.

Gary Player leads all architects in holes under construction with 72 of his own plus another 18 in a joint project with Karl Litten, who has 54 holes of his own under construction. Ron Garl, Lloyd Clifton and Arnold Palmer/Ed Seay also have 54 holes abuilding.

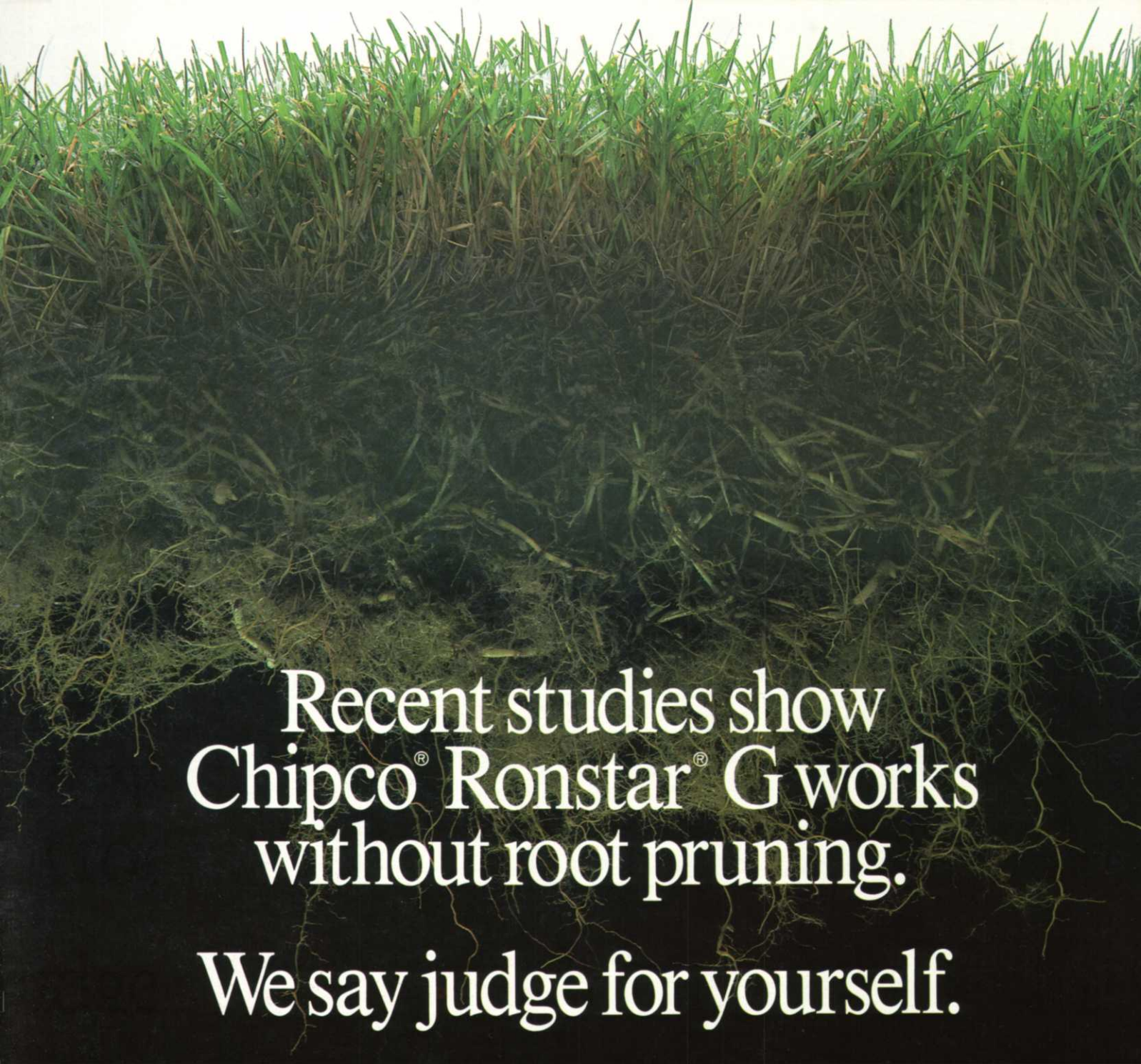
COURSES UNDER CONSTRUCTION

City	Course	H	Architect	Type
Beverly Hills	Beverly Hills GC	18	Litten, Karl	DF
Bonita Springs	Bonita Bay Club	18	Hills, Arthur	P
Bonita Springs	Worthington CC	18	Lewis, Gordon	P
Clermont	Palisades	18	Lee, Joe	?
Dade City	The Cedars	18	?	D
Delray Beach	Polo Trace East	18	Litten, Karl	P
Delray Beach	Polo West (East Course)	18	Litten, Karl	P
Fisher Island	Fisher Island Club	9	Dye, PB	P
Fort Lauderdale	Wester Hills	18	Jones, Robert T. II	P
Homestead	Keys Gate G&T Club	18	?	P
Jacksonville	Craig Muni Airport	18	?	Muni
Jacksonville	Mill Cove GC	18	Palmer/Seay	DF
Jacksonville Beach	Queens Harbor Y&CC	18	McCumber, Mark	P
Keystone Heights	Keystone G&CC	9	Haines, L. Daniel	DF
Kissimmee	Kissimmee Bay	18	Clifton, Lloyd	DF
Lakeland	Big Cypress Lakes	9	Garl, Ron	DF
Lakeland	Bramble Ridge	18	Holloway & Assoc	DF
Lakeland	Grasslands @ Oakbridge	18	Pate, Jerry	DF
Lakeland	Oakbridge CC	18	Cupp, Robt.	P
Miami	CC of Miami	18	Wood, Bobby	DF
Miami	Deering Bay	18	Palmer/Seay	P
Middleburg	The Ravines	9	McCumber, Mark	DF
Mount Dora	Mount Dora CC	18	Clifton, Lloyd	P
Naples	Embassy Woods at Bretonne Park	18	McCumber, Mark	P
Naples	Lely Classic GC	18	Player, Gary	P
North Fort Myers	De Vera	9	Garl, Ron	P
North Merritt Island	The Savannas	18	Lewis, Gordon	Muni
Orlando	Orlando NTC GC	9	?	Mill
Ormond Beach	Riverbend	18	Clifton, Lloyd	DF
Palm City	Cutter Sound	18	Player, Gary	P
Palm Coast	Cypress Knolls	18	Player/Litten	P
Palm Harbor	Crescent Oaks	18	Smyers, Steve	P
Palm Valley	Palm Valley GC	9	?	DF
Pensacola	Marcus Pointe CC	18	Stone, Earl	DF
Sarasota	Laurel Oaks	36	Player, Gary	P
Sarasota	Oak Ford	9	Garl, Ron	DF
Sebring	Highland Ridge CC	18	Smyers, Steve	DF
Sebring	Spring Lake	9	?	DF
St. Augustine	Ponce deLeon Resort	9	Lee, Joe	DF
Stuart	Bulldog Sport Complex	3	Ankrom, Charles	DF
Sun City Center	Sun City Center GC	27	Garl, Ron	P
Vero Beach	Orchid Island	18	Palmer/Seay	P
Volusia County	Halifax Plantation	18	Amick, Bill	P
West Palm Beach	Binks Forest	18	Miller, Johnny	P
West Palm Beach	Cypress Lakes GC	9	?	P
West Palm Beach	Ibis Legends	18	Nicklaus, Jack	P
West Palm Beach	Ironhorse CC	18	Hills, Arthur	P
Winter Haven	Bay Tree CC	18	Refram, Dean	DF

COURSES PLANNED

Bonita Springs	Bonita Fairways	18	Lewis, Gordon	P
Bradenton	Cypress Banks	54	?	DF
Brevard County	Valkaria GC	18	Ankrom, Charles	Muni
Cape Coral	Royal Tee CC	9	Lewis, Gordon	DF
Cocoa Beach	Cocoa Beach Municipal	9	Lewis, Gordon	M

Coconut Creek	?	9	?	DF
Daytona Beach	LPGA Headquarters	36	?	?
Daytona Beach	Wildbahn Ranches of Daytona	18	Palmer/Seay	DF
Delray Beach	Polo Trace	18	Litten, Karl	P
Delray Beach	Polo West	18	Litten, Karl	P
Delray Beach	Polo West (North Course)	18	Litten, Karl	P
Destin	? Tidewater Beach	18	Ankrom, Charles	P
Destin	Emerald Bay Plantation	18	Cupp, Robert	DF
Eastpointe	Green Point	18	Clifton, Lloyd	D
Fort Lauderdale	Ravina	18	Nicklaus, Jack	P
Goldenrod	Monterey	18	Northrup, Ward	P
Haines City	Pine Oaks	18	Lee, Joe	P
Hawthorne	Oak Tree Sports Club	18	Northrup, Ward	P
Homosassa	Plantation Club	18	Irwin, Hale	DF
Howey in the Hills	Bella Vista	18	Clifton, Lloyd	DF
Imokalee	?	18	Hills, Arthur	P
Jacksonville	Glen Karman	18	Nicklaus, Jack	P
Jacksonville	Julington Creek	9	Walker, Robert C	DF
Jacksonville	Silver Sands	18	?	DF
Lake Placid	Sun 'n Lake	18	Lewis, Gordon	DF
Lake Wales	Lake Village	18	Lewis, Gordon	DF
Lake Wales	River Ranch Resort	9	Garl, Ron	DF
Lake Worth	Wycliffe G&CC	18	Litten, Karl	P
Lakeland	Lakeview GC	18	Griffiths, Denis	DF
Melbourne	Suntree West	18	?	P
Melbourne	Washington G&RC	18	Dye, PB	P
Melbourne	Waterford	18	Garl, Ron	P
Miami	Old Cutler Bay	18	Nicklaus, Jack	P
Mulberry	Imperial Lakes	9	Garl, Ron	P
Naples	?	18	Bates, Gene	P
Naples	Casa Del Sol	18	Lewis, Gordon	P
Naples	Lely Estates	18	Jones, Robert T. Sr.	P
Naples	Lely Resort Mustang	18	?	DF
Naples	Livingston Road CC	18	Nicklaus, Jack	P
Naples	Naples Golf Estates	18	Lewis, Gordon	P
Naples	Old Florida GC	36	Jones, Rees	P
Naples	Sable Bay Resort	18	?	P
Naples	Sable Bay Resort	27	?	DF
Naples	Shamrock G&CC	18	Northrup, Ward	P
Naples	Southampton	18	Lewis, Gordon	P
Odessa	The Eagles	9	Garl, Ron	P
Oldsmar	Oldsmar CC	18	Lewis, Gordon	DF
Orange City	Village Greens CC	9	?	DF
Orlando	Bastian	18	Lewis, Gordon	DF
Pasco County	Trinity Communities GC	18	Griffiths, Denis	DF
Plant City	Walden Lakes	9	Garl, Ron	P
Port Charlotte	Mariners Properties	18	Bates, Gene	P
Port Orange	Port Orange Municipal GC	18	Hills, Arthur	M
Port St. Lucie	Westport	18	Walker, Robert	DF
Punta Gorda	Fairway Woodlands	18	Lewis, Gordon	P
San Antonio	Cannon Ranch	27	Smyers, Steve	DF
Sanibel Island	Beachview GC	9	?	DF
Sarasota	Sorrento Valley	18	Amick, Bill	P
Spring Hill	Silver Thorn	18	Lee, Joe	P
Spring Hill	Timber Pines	18	Garl, Ron	P
St. Augustine	The Fountains	18	Player, Gary	P
St. George Island	Amada Bay	18	Lewis, Gordon	DF
Stuart	Glen Eden	36	Litten, Karl	P
Wellington	Town of Wellington	27	Litten, Karl	P
West Palm Beach	Ibis Heritage	36	Nicklaus, Jack II	P
West Palm Beach	Lion Country Safari GC	18	Bates, Gene	DF
West Palm Beach	Royal Palm Beach Village	36	Litten, Karl	P
Windermere	Glen Muir	18	Muirhead, Desmond	P



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Brand Herbicide



His solutions are all wet



Winner of the Florida Turfgrass Association's highest award in 1989, Tom Latta built a business on controlling a pair of exotic aquatic weeds

By
Kit Bradshaw

Meeting Dr. Tom Latta is like meeting every kid's best high school science teacher. The teacher who was so contagiously enthusiastic about frogs that you actually wanted to dissect one just to learn more. The one who honed your creative problem-solving skills by helping you try again after your chemical reaction experiment foamed all over the Bunsen burner.

Latta, the president of Deerfield Beach-based AmerAquatic Corporation and winner of the Florida Turfgrass Association's 1989 Wreath of Grass, attributes his success to "attention to detail, well-trained people, quality and service."

AmerAquatic is one of a handful of companies that specializes in lake management, particularly the control of algae and aquatic weeds, for a growing list of private customers: golf courses, homeowner associations and developers.

A Ph.D. in physical chemistry who can explain the properties of aquatic weeds with enthusiasm, Latta is a natural problem solver who encourages inventiveness.

Take the matter of equipment

"Most of our equipment results from seeing a problem — 'we could be more efficient if we do this' — and encouraging our employees to generate ideas to solve the problem," Latta says. "We have a well-equipped fabrication plant where we can build something that helps solve a problem."

For instance, lake banks — as every superintendent knows — are not necessarily even, flat surfaces. So AmerAquatic grafted about a thousand pounds of equip-

ment onto a Volkswagen chassis and came up with the Spra-Buggy, a vehicle that can safely traverse 35-degree inclines.

The company also builds its own spray boats with special lightweight materials from Sweden, resulting in 300-pound craft that are highly maneuverable.

The purpose of all this inventiveness is the control of algae and two weeds: hydrilla and water hyacinth.

"The state of Florida spends \$10 million to \$12 million a year trying to control aquatic weeds. . . and that's just on herbicides," says Latta. "It also spends a lot of money on manpower and mechanical harvesting of these weeds.

"Hydrilla gets most of that money; hyacinth gets the rest. The so-called minor weeds don't get that much attention at all."

Hydrilla is anchored at the bottom of a waterway and grows toward light; it chokes the water system.

Water hyacinth grows on top; it smothers the waterway.

It's rare when both weeds co-exist as they do at Lake Okeechobee.

Together these weeds can create a one-two punch in any canal or body of water. Both are native to South America and lack natural predators here.

"Hydrilla was imported to Florida in the 1950s," Latta explains. "Someone in Dade County used it as an aquarium plant. When they got rid of the aquarium, they dumped the contents into a canal. . . It's a national menace now. You can see it growing in the Tidal Basin in Washington, D.C."

Water hyacinth came to New Orleans during the World's Fair in the 1890s.



"A world traveler thought it would be a good plant to grace the bayous during the fair," Latta said. "Admittedly, the plant does have a very attractive purple flower. But after the fair, the hyacinths were left unattended, started to swell and spread through the bayous.

"Someone else imported it to Jacksonville and the same thing happened in the St. John's River."

AmerAquatic technicians use chemical, mechanical and biological weapons to control algae and the weeds.

"Our technicians are very accurate marksmen," Latta says. "When they are trimming the weeds around a lake, they will create a very straight line so they won't have a herbicide drift going up and burning the turf.

"Of course the superintendent is worried because he wants to get his turf right down to the lake. If he gets a herbicide burn, he'll have erosion problems and it looks unsightly."

In the back of AmerAquatic's sprawling facility in Deerfield Beach — one of five locations in Florida — are a trio of fish tanks.

The tanks hold hundreds of white amur, a relative of the carp imported from China, which feeds on aquatic weeds. They are fattened on grass clippings before being released.

"The bigger they are, the less vulnerable they are to predators," (egrets, herons and bass) Latta says.

Part of the problem is that development is encroaching on nature. . . We need to structure ourselves to protect wetlands, create wetlands or create areas which will function as wetlands.

"One of our lakes has a problem with water condensation from air conditioning," says Steve Kuhn, superintendent at Doral Resort & CC in Miami. "AmerAquatic put in the weed-eating amur and it has solved all our problems."

Latta admits that 25 years ago, he wouldn't have thought he ever would be standing beside a fish tank, trying to capture an elusive white amur for the camera.

"I was in New Jersey, working for a chemical company," he says.

Already armed with an undergraduate degree from Princeton and a Ph.D. from the University of Illinois, Latta attended night school at New York University to earn an MBA.

His unique combination of scientific and business skills led him into management consulting.

"We got involved with companies that had invested in small businesses that supported the moon shot," Latta recalls. "When the moon program was

over, there was a question as to these companies' viability. I was brought in to analyze these companies."

After six years as a consultant, Latta joined a client as vice president for corporate development. Among the client's assets was a company involved with wastewater purification and one of its subsidiaries was a company known as Florida Aquatic.

"At that time I was approaching 40 and I wanted to own my own business, or a piece of my business — many of our key employees are also shareholders in this company. I bought shares from a retiring stockholder and the company continued to grow.

"When we expanded beyond Florida, we changed the name from Florida Aquatic to AmerAquatic."

Latta emphasizes that AmerAquatic isn't in the business of killing weeds; just controlling them. The firm also is involved in wetlands mitigation — providing areas in which weeds are encouraged to grow.

"Part of the problem, as seen by some regulatory people, by some water managers and many environmentalists, is that development is encroaching on nature... and we have to pay for this. We need to structure ourselves to protect wetlands, create wetlands or create areas which will function as wetlands.

"In some cases, this means we create an area around a lake, plant aquatic plants there and encourage and maintain this as a border zone which will function as wetlands."

Environmental regulation is of primary concern to Latta, who heads the FTGA's external affairs committee, which focuses on legislative affairs.

"We lobby . . . perhaps that's too strong a word . . . but we share our views on legislation that affects our industry," he says.

THOMAS LATTA, PH. D.

Age: 51

Experience: M.W Kellogg, New Jersey, researcher; CRESAP, New York, management consultant; CLEPAK, New York, vice president of corporate development; AmerAquatic (formerly Florida Aquatic), president since 1978.

Education: B.S. in chemistry, Princeton University; Master's and Ph. D., University of Illinois. MBA, New York University.

Professional: Director FTGA 1979-1986 (president 1984-85); current chairman of external affairs committee.

Personal: Married to Carla; two sons, Bruce 25 and Brian 24.

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Latta was a board member of the FTGA from 1979 through 1986, serving as president in 1984-885.

"Dr. Latta is a man I truly respect," says Jim Ellison, superintendent at Bay Hill Club in Orlando. "He has made great contributions to the FTGA. Our industry really needs people of his stature."

Latta says an important function of the FTGA is to keep its members informed.

"For instance, there is SERA Title III (See page 48), which is called the 'com-

munity-right-to-know law.' It was created in response to the Union Carbide explosion and is designed to let a community know where large quantities of hazardous chemicals are stored.

"The federal government administers this law through the states.

"On a golf course, there are three chemicals which could trigger compliance with SERA provisions: Paraquat, Namacur and chlorine.

"The issue is not *what* a chemical is, but *how much* you have.

"If you have a tank of chlorine that is over the quantity threshold, you are required to post notification, which can be very expensive for a golf course, both in following the provisions and in the penalties that can occur if the regulations are not followed."

Other association activities which Latta feels are important for the long pull include taking the lead in developing a research program on groundwater quality.

"This is one of the up-and-coming issues," he says. "What *really* happens to the pesticides, to the fertilizers you are putting on golf courses and home lawns?

"It is easy to accuse us of polluting the environment when you don't have any facts. Our goal is to try and get some studies done to address the issues instead of speculation. . . to substitute facts for speculation in rule-making and legislation.

Several years ago, he adds, the FTGA approached Florida's Department of Environmental Regulation to add some turf sites to its groundwater monitoring program proposed for Palm Beach County.

"I asked for volunteers and we got an instant response from two intensely maintained golf courses. As high-budget, high-maintenance courses, they present a worst-case scenario. If we don't find a problem in the monitoring wells there, it would be a pretty good basis for extrapolating that there won't be a problem with a low-budget, low-maintenance golf course."

Latta sees the FTGA as unique in its role to inform and educate.

"You know, we in the turf management business are basically farming in an urban environment. We are surrounded by homes, condominiums, water supplies, municipal well water systems.

"If we are good stewards of the land, and I think we are, not only must we be good stewards, we must also have the data that *say* we are good stewards.

"That is why the research and education efforts of the FTGA are so important."

Kit Bradshaw is a freelance writer based in the West Palm Beach area.

Wreath of Grass Recipients

1960

James L. Blackledge
Gene C. Nutter
O. S. Baker

1961

Joseph R. Konwinski
Lloyd M. Clifton
T.A. Johnson
William L. Barton
L. N. Clark
Ralph F. Jones

1962

Sidney Kirkpatrick
John Schabinger
Henry C. Martin
James E. Ousley
Ed B. Cale

1963

Frank Ward
Howard Bardsley
David W. Turner
Ralph W. White

1964

Ralph Harper
Ward Wood
Nash Higgins

1965

Chan W. Baker
Ralph Smalley

1966

Roy Bair
Wayne A. Hibbs

1967

Harvey Linderman
Robert A. Lagesse

1968

Robert Willis
Charlie Johnson

1969

Francis Brannan
E.O. Burt

1970

G.C. Horn
Ben Reemelin

1971

William E. Colburn
Arthur Griffes

1972

Joseph Yuzzi
Wynfred R. Briggs

1973

J. Leroy Fortner
Robert H. Enochs

1974

John S. Hutton

1975

Stanley F. Cruse

1976

Carl R. "Bud" Pearson
Charles L. "Bud" Quandt

1977

Harvey Phillips

1978

Harry G. Meyers

1979

Robert B. Sanderson

1980

David L. DeBra

1981

Brian M. Silva

1982

Max A. Brown

1983

William G. Wagner

1984

Jerry H. Cheesman

1985

T.E. Freeman

1987

Dan Jones

1988

Gerald Millholen

1989

Tom Latta

INDUSTRY ROUNDUP

Rain Bird honors Florida distributor, promotes three

Florida Irrigation Supply of Orlando was one of 10 Rain Bird distributors honored for outstanding performance at the firm's annual awards banquet in Anaheim, Calif., earlier this year.

In addition to the honors, Rain Bird also announced expansion plans to meet the growing golf market.

Ed Shoemaker has been promoted to vice president/general manager to oversee sales, marketing, engineering and manufacturing operations of the company's golf division. Steve Christie is the division's new director of sales and marketing.

Rod McWhirter, sales representative for Peninsular Florida, was given the additional responsibility as national golf specification manager to work directly with golf course architects, designers and irrigation consultants across the United States.

Finally, Jim Schumacher, CGCS, was



Shoemaker



Christie



Schumacher



Stuart

named golf division manager for the Southeast region, which includes the Florida Panhandle.

The company also announced that its two-year-old German subsidiary, Rain Bird Deutschland, has achieved 40 percent of the golf course market in that country.

• • •

Lofts Seed Inc. has awarded \$1,000 scholarships to seven graduate students in turfgrass science at Rutgers University in New Brunswick, N.J.

Recipients are Jane Breen, Leslie Rickert Campbell, Melodee Kemp, Kathi Hoffman Knight, Karen Plumley, Suichang Sun, and Margaret Waters.

The awards, presented at the 1989 New Jersey Turfgrass Expo by Lofts chairman Jon Loft, mark the seventh consecutive year of a program honoring Peter Selmer Loft.

In December, Lofts announced a long-term contract with American Golf Corp., to be the management firm's exclusive turfgrass supplier. AGC owns or manages about 110 golf courses across the U.S.

• • •

Ransomes Inc. has appointed Thomas Stuart as vice president of engineering. Stuart held a similar position with Blackhawk Automotive, a division of Applied Power in Milwaukee.

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Also, in many places, the use of inadequate filtration systems will not stop the dirt from passing through (tunneling through the sand in a sand media filter, or screen mesh). Other filters will rapidly plug up, causing excessive pressure buildup at the filter inlet, which simply adds to pumping costs and denies water to

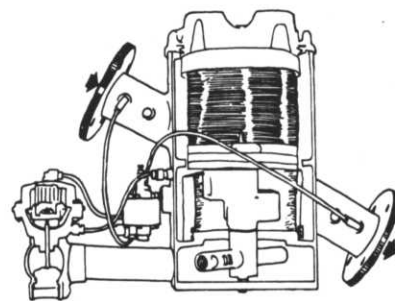
the root system.

This may even result in shut downs for manual cleaning of the filters, causing excessive labor costs.

Solution: An excellent cost saving solution is Filtomat Automatic Systems. These compact filters ranging in sizes from 2" to 16" can handle unlimited flow from any water source at pressure of up to 250 psi. They can remove particles as small as a few microns (over 1,000 mesh) using stainless steel screens -- and they are automatically self-cleaning, requiring no manual attention. No external power is required since the filter operates on water line pressure alone and the rinse cycle is extremely short -- saving valuable water. Installation is very simple, since it is line mounted in any position.

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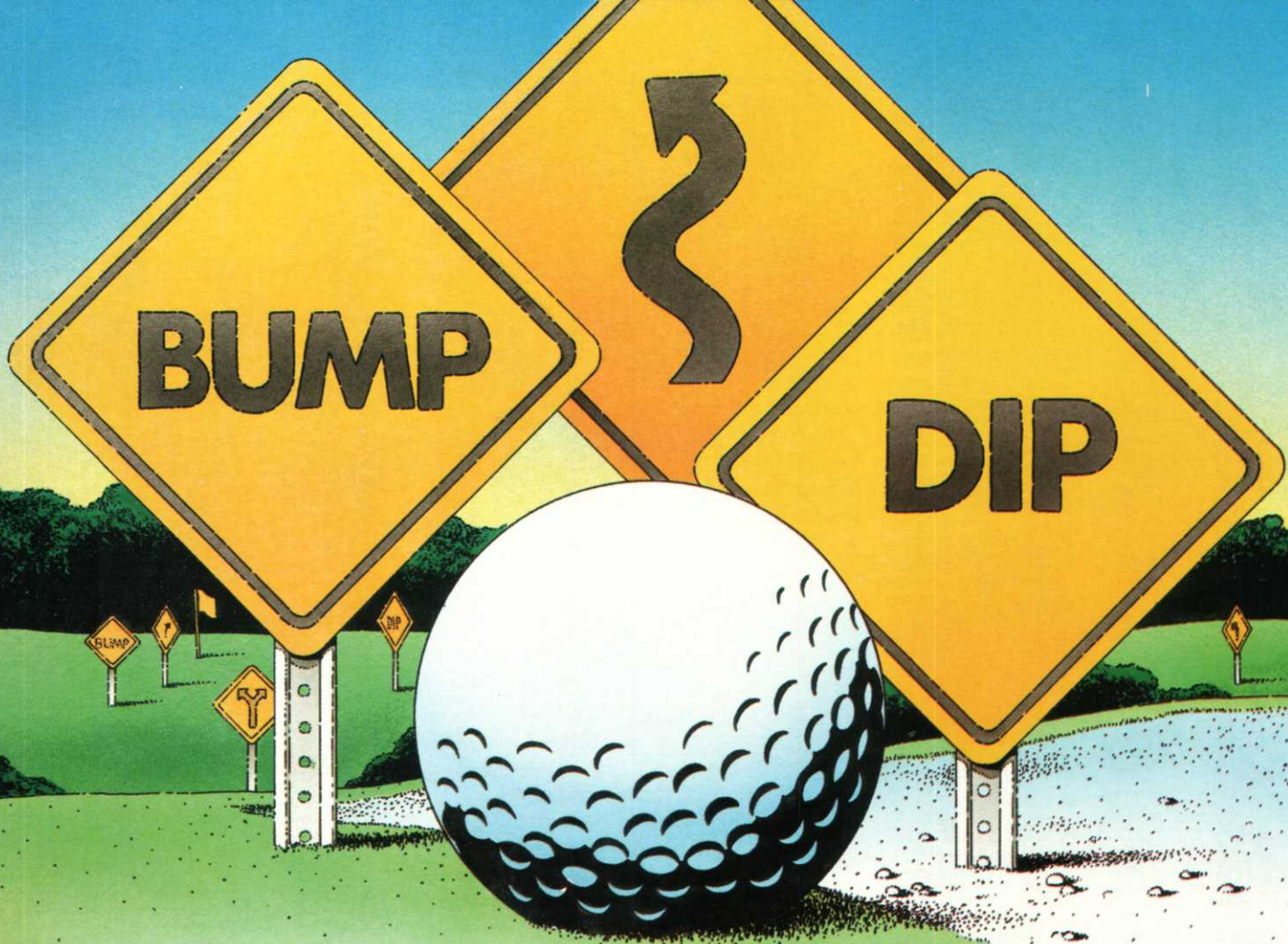
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NEW PRODUCTS

Every quarter, *The Florida Green* receives dozens of news releases from suppliers and manufacturers. Selection for publication is based first on the product's apparent newsworthiness to golf course superintendents. As a general rule, no more than one release from each manufacturer will be printed in the same issue.

Faster top dressing

Designed by a superintendent, the new Flex Brush from Standard Golf is a set of three brushes that attach to the cutting units of Toro and Jacobsen greensmowers to brush a swath as wide as each mower's cutting width. Follows the contours and undulations of all top-dressed surfaces like no dragging method can.



System prevents run-off on slopes

The new Maxi System IV from Rain Bird features a unique "Cycle and Soak" that prevents unwanted evaporation, flooding or run-off from slopes by turning on specified heads for brief periods and then off for longer periods to let the water soak in. Cycle and soak times are specified by the operator.



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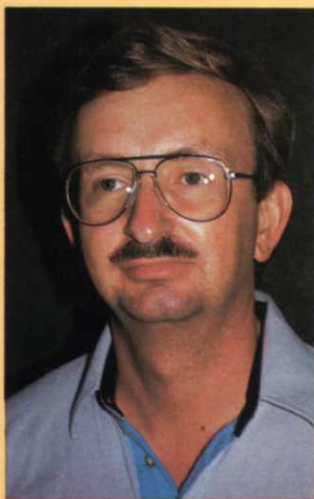
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Not everybody can be the head superintendent



Mike Bailey

Mike Bailey
Golf Course Superintendent
The Falls CC
Lake Worth

Last year, one of my assistants quit, leaving me high and dry, because he realized he would not become the superintendent within the next year.

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Does every person entering the golf course maintenance career field need to become the superintendent?

What's wrong with becoming a career equipment manager, spray or irrigation technician or, for that matter, a *career assistant* superintendent?

Sadly, our society looks upon those jobs as "second level" and most golf courses give second-level pay and prestige to the people who fill them.

And that's a shame because those are the jobs that the industry desperately needs filled.

A golf course maintenance department might employ six people or 60, but in each case, only one of them is the superintendent. Yet each job is important.

Not everybody can become a superintendent or a doctor or a lawyer.

Clare Huxtable, who is a lawyer on television's "The Cosby Show," told son Theo that he didn't have to become a professional like his parents. Instead, she said, "Grow up and become as good as you can at whatever you choose. Just make sure you are the best at whatever you become."

But the message isn't getting through.

When I interview employees, I often ask, "Where do you want to be in two to five years?"

Usually, no matter what job they are applying for, they will say, "Sitting behind your desk as the golf course superintendent!"

Ridiculous!

In most cases, the applicant has little or no training in agronomy, no management skills, not a clue about budgeting, but he honestly thinks he deserves a shot at running the whole show.

On the other hand, it is understandable that a person who has just spent two to four years in college training to be a golf course superintendent should aspire to the job he

has trained for, but it isn't realistic.

There aren't that many superintendent jobs open. I'm sure we all know at least 10 good assistants who are qualified to move on, but the jobs just aren't there.

We have a glut of college-educated golf course managers on the job market right now while a number of other important golf course maintenance jobs are going unfilled because those highly-trained individuals find them "demeaning."

Who's at fault here?

Everybody and nobody.

But let's point some fingers, anyway, starting with the society which imbued my generation with the notion that everyone could — and therefore *should* — go to college. Jobs which don't require a college education became less desirable. . . or even *undesirable*.

And then there are the universities, which are currently painting a beautiful picture of the superintendent's post, pumping in those high aspirations.

Granted, the top graduates will make their way to the top of the ladder, but what about the others?

They will have acquired an education worth tens of thousands of dollars and will be capable of performing effectively as assistants and technicians but they won't be satisfied because they have been told since childhood to seek only the top job.

If our assistant were to leave today, I could screen dozens of qualified applicants tomorrow.

But what about the mechanic or spray technician?

I would love to find a college-educated person who would bring a professional approach to the position of equipment manager, pesticide manager or irrigation technician. And I am certain I could convince my employer to offer compensation and benefits commensurate with the qualifications — particularly if the applicant indicated a desire to stay in that position.

And those positions are available. Today. Everywhere.

At our professional meetings, a recurring question is, "Hey, do you know of a good mechanic or spray tech?"

Educators need to be aware of the positions that are actually open and students should be guided toward training for and seeking those jobs.

We have enough chiefs. What we need are some Indians with professional feathers in their caps.

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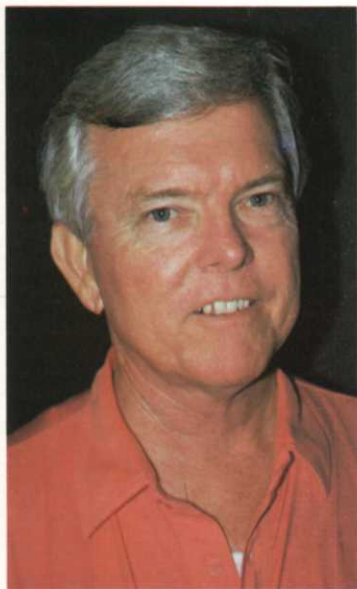
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'Germ warfare' against the mole cricket appears to be working

It's still too early to tell about the red-eyed fly



Golf Course Manager
Banyan Golf Club
West Palm Beach

As we reported last quarter, a new arsenal has been unveiled in Florida to help fight the state's number-one golf-course pest, the mole cricket. A red-eyed fly and a prolific nematode are joining forces with turf professionals to try to bring mole crickets under control.

J. Howard Frank and J. Patrick Parkman, entomologists from The University of Florida, are spearheading this experimental program. Funding is being provided by The Florida Turfgrass Association. Each of the 30 golf courses participating in the project has paid the FTGA \$8,000.

In late January, a three-hour seminar was held to teach each golf course superintendent how to run the program.

The parasitic nematode project consists of two 3-foot funnels, a million nematodes and two electronic "callers" which imitate the mating calls of the male tawny and southern mole crickets.

The nematodes are placed in the ground under the funnels.

When the female mole cricket comes to the mating call of the male, she falls through the funnel to the ground. She burrows into the ground and a nematode enters her body through a breathing port or through the mouth.

The nematode releases a very specialized bacteria which kills the mole cricket. The nematode lays 50,000 eggs inside the mole cricket and lives off the decaying carcass and the bacteria.

Dr. Parkman came to Banyan GC in mid February to install our callers and deposit the nematodes into the ground. We started to see activity under the funnels the next day.

A serious problem developed on the

third night when the local armadillo population discovered a new restaurant. The grass under the funnels was really torn up so to protect the mole crickets and nematodes, we had to put a fence around the funnels and callers.

By the fifth day, rumors were rampant around the clubhouse about the mole cricket experiment site, which was located next to the 10th green. The best one was that the apparatus was a spaceship.

We had a sign made: *Mole Cricket Research by the University of Florida*. The rumors have abated.

After four weeks, we have had so much mole cricket activity under the funnels that almost all the grass is gone. Weeds are sprouting everywhere. And for this experiment, that is good.

So far, I believe the experiment site at Banyan has been successful in attracting the mole crickets to the nematodes. Now I hope the process spreads throughout the entire golf course.

The red-eyed fly is also a host-specific organism for the mole cricket.

It seeks the mole cricket out at night and lays an egg on its abdomen. The resulting larva then proceeds to eat the mole cricket until the cricket dies. The larva emerges as an adult and seeks out another mole cricket and the cycle repeats itself. Fifty red-eye flies are to be deposited at each participating golf course.

There is hope that, with these latest weapons, the mole cricket will eventually go the way of the dinosaur.

The twin funnels and mole-cricket callers shown here off the 10th green at Banyan GC in West Palm Beach may someday become as common a sight on golf courses in the South as ball-washers. More photos of the installation on next page.



FTGA-funded mole cricket control research project



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DAN JONES

Drs. Howard Frank, left, and Pat Parkman of the University of Florida's Institute of Food and Agricultural Sciences assemble the two funnels and mole cricket callers off the 10th green at Banyan GC in West Palm Beach. A million nematodes get watered into the ground beneath the funnels, right. The electronic callers entice the mole crickets into the funnels, from which they drop straight onto the nematode-infested turf. The crickets burrow into the ground beneath the funnels and are attacked by the nematodes, which carry bacteria that are lethal specifically to the mole crickets. The nematode-bacteria combination is a natural enemy of the mole cricket in its native South America.



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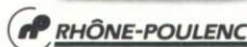
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Thanks for outstanding support of research efforts

Congratulations to both of you!

I, like so many others who have known each of you for several years, know that even before Irene was named assistant editor, she was actively involved in the editorship from day one. As editors, the two of you have certainly provided 16 long, hard years of outstanding service to the Florida Golf Course Superinten-

dents Association and to the whole turf industry.

Dan, you've always been the ideal superintendent to me. You do an excellent job of managing grass and people, two components to find a better way to accomplish your goals.

For this I am most grateful since you always went out of your way to assist researchers in their efforts to find a better way.

As a researcher in Florida for 14 years, you were one of my most valued assets; I could always count on you to help me out, whether it was making a needed contact or

providing space or equipment.

I may be a Texan now, but I still feel very close to the Florida turfgrass industry and am very proud of its accomplishments and I am proud to have been a part of your industry. You have helped to make many of these milestones happen and you should feel proud.

Best of luck in your retirement from The Florida Green; we all know you haven't become inactive.

*James A Reinert
Resident Director of Research
Texas A&M University Research Center
Dallas*





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