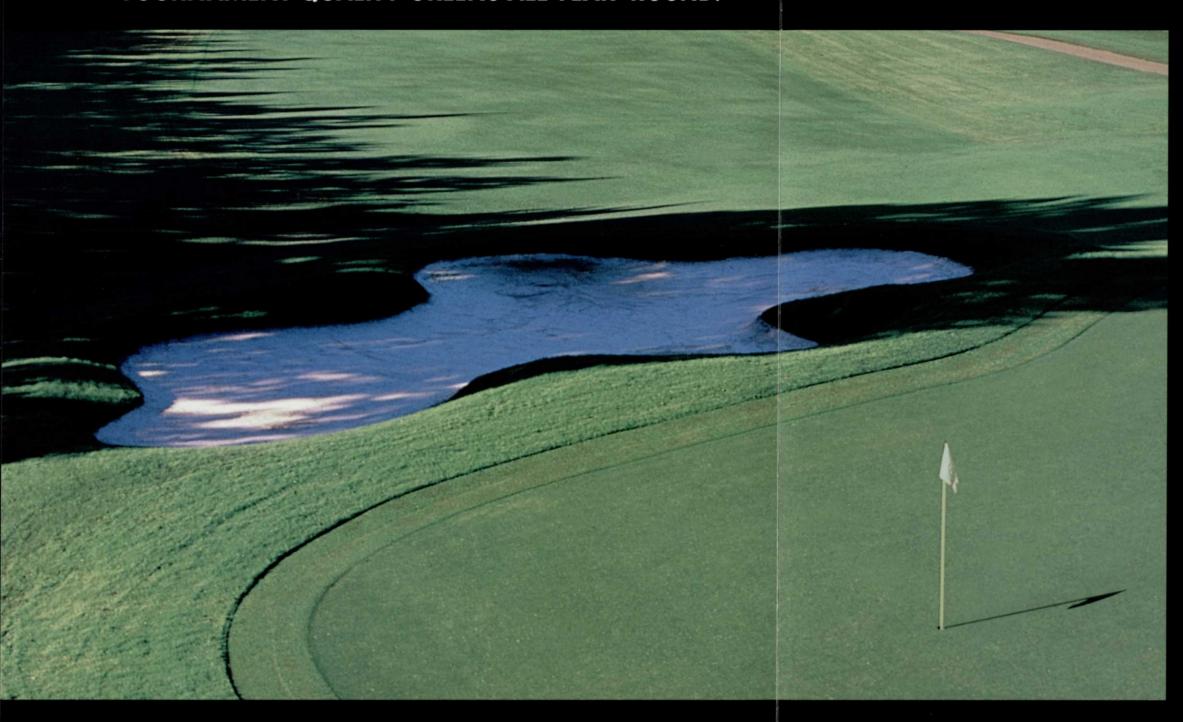
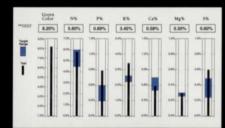


# TOURNAMENT QUALITY GREENS ALL YEAR 'ROUND.





Toro Diagnostic Services features NIRS Tissue Testing with our exclusive Universal Green Turf Scale.



We have a complete line of nutrients, soil conditioners and specialty products.



NutriFlow™ Nutrient
Injection Systems
deliver liquid
organic nutrients
in just the right
amounts — where
you want them.

# TORO® BIOPRO® BUILDS RESILIENT GREENS EVERY DAY — NOT JUST AT TOURNAMENT TIME.

Did you notice the greens at the Greater Greensboro Chrysler Classic this year? We sure did. In fact, we're proud to say that BioPro's powerful line has been a mainstay in Forest Oaks Country Club's program for stressresistant, tough greens. So at tournament time, we knew the turf was up to the challenge.

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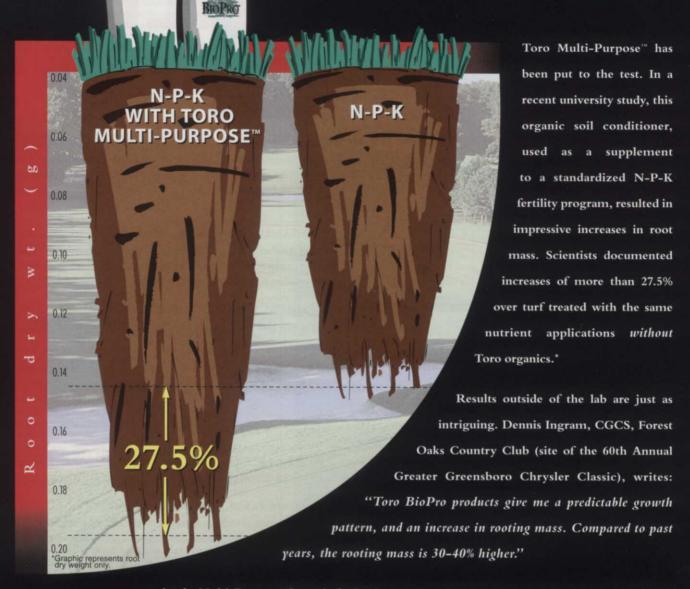
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Apply Multi-Purpose through fertigation, conventional spray, or tank mix it with N-P-K nutrient blends as an organic supplement to attain these results for your turf. Call your Toro Distributor for details.

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2

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President Ioe Ondo asks superintendents to share their El Nino survival techniques, if they have any. VP Mike Perham questions whether superintendents are being held to an impossibly high standard... and notes the retirement of Dan Jones, CGCS, editor emeritus of the Florida Green.

SPOTLIGHT GCSAA, FUND-RAISERS, EDUCATION, BOARD MEETING ........... 12 Florida was well represented at Anaheim; Lake City alumni, Central Florida GCSA and Valent raised money for scholarship & research; FTGA conducted five regional seminars; FGCSA board strengthens ties to FTGA, creates full-time staff position.

Kensington Country Club is a new golf course with a young superintendent in his first stint as the top gun. Kensington is going places... the future.

PROFESSIONAL DEVELOPMENT EMPLOYEES, COMPUTERS ....... 48

How to develop and nurture your employees - biggest asset; free e-mail service; IFAS releases a CD to ID bugs.

HANDS ON SPRAY IT ON, BLOW IT OFF ...... 54

"Wall-to-wall" is a term for carpet salesmen, not spraying of chemicals; Joe Ondo discusses the spray operation at a public course; Brian Lentz at a private facility. Darren Davis's Super Tip is use and construction of a blow-off station.

INDUSTRY ROUNDUP COORDINATOR, ALLIANCE, PANHANDLE ............... 60

Dr. John Cisar is UF's new turf program coordinator; an architect and a superintendent will lead the Florida Golf Alliance; Dr. Brian Unruh discusses the turf program in the Panhandle, UF's fourth and newest.

The Village of Golf lives harmoniously with nature; green is not always green; do-ityourself wildlife calendar boosts morale, raises money for wildlife projects.

There are some statistically significant differences in speed among bermudagrass cultivars, but they're not very useful because green is the enemy of speed.

Dr. Monica Elliott of UF and John Foy of USGA Green Section wrote letters to Florida superintendents and golf courses, explaining why superintendents can't control El Nino; Rick Tatum says FGCSA, FTGA and GCSAA equal power; Mark Jarrell talks about building bridges; Joel Jackson finds some good in every piece of bad news... or vice versa.

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

# The Florida Green

Official Voice of the Florida Golf Course Superintendents Association

Published four times a year:

On the twenty-fifth of January, April, July, and October

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SUBSCRIPTIONS: \$20 for four issues. Contact the FGCSA office

ADVERTISING: For rates and information, contact the FGCSA office at 800-732-6053

EDITORIAL: All inquiries should be directed to the editor, Joel Jackson, CGCS. Unsolicited manuscripts and photographs cannot be returned.

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#### Production

The Florida Green is published with the assistance of Janlark Communications, Inc.

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www.janlark.com

413 Magnolia Ave. • P.O. Box 336 • Auburndale, FL 33823 941-967-1385 • Fax 941-967-4553 • E-mail: janlarkcom@aol.com

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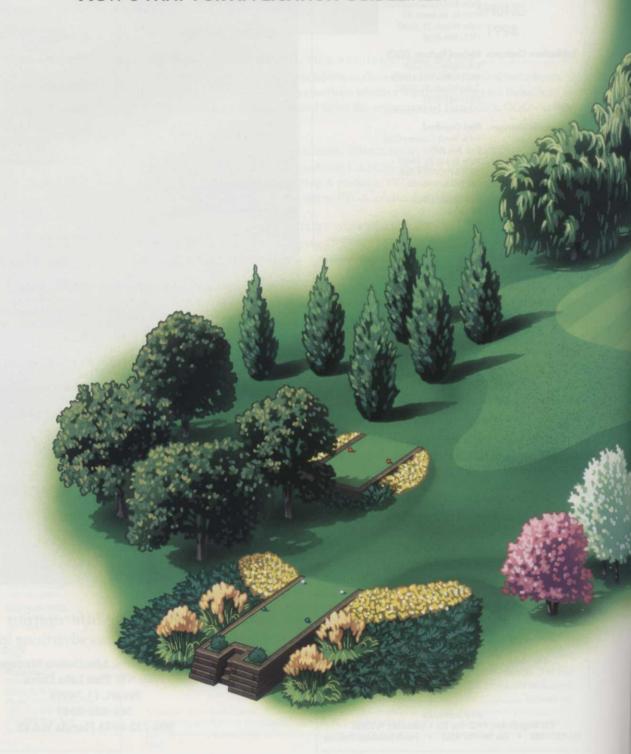
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# HERE. THERE. EVERYWHERE.

How's THAT FOR APPLICATION GUIDELINES?





# I hope most employers will have the patience and understanding to let us get through this difficult winter season.

eems like the weather is still the hot topic of conversation as I write this message on Feb. 20.
While some people still think of El Niño

as only affecting
California and the
western U.S. coast,
Florida and the entire
Southeast is still
experiencing its impact
on our weather patterns.
We have had
approximately 24 inches

We have had approximately 24 inches of rain since December on my course and there's no end in sight

yet! I know each part of the state has been affected differently, but I hope the GCSAA packets on Southeastern Winter Damage sent to GCSAA members has been of help to many of you.

Those of you who have had good greens this winter, I wish you would

share with other superintendents, through the *Florida Green*, anything special you did that you felt helped you get through this winter.

For those of us — including myself — with bad spots or even a few bad greens, would you also share how you managed your weak greens through this winter? Please share any maintenance practices that seemed to help and any rebuilding or resodding you had to do to fully recover.

I know there will be some job changes. Some of them from these circumstances beyond our control. I hope most employers will have the patience and understanding to let us get through this difficult winter season.

Mother Nature is not kind to us sometimes but we will survive.

Hopefully soon in our conversations, we will be able to talk about the winter of 1997-98 in the past tense!

# Everybody's Still Talking About the Weather!

# PRESIDENT'S MESSAGE



Joe Ondo, CGCS President FGCSA

Lester moved to one-size-fits-all fungus control, and he was impressed. It took a case of dollar spot and brown patch to prove my solution was better.

Like many superintendents, Lester Fold was impressed by the claims of a single, wide spectrum fungicide. For a while it worked, although I warned that when conditions changed there could be any number of diseases that

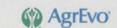
only tank mixing would control. Lester didn't buy it.

But then a case of dollar spot and brown patch developed, and the new fungicide was no help. Also the weather turned wet and, sensing trouble, I recommended a tank mix of ProStar® Fungicide

and sterol inhibitors. It worked, preventing disease infestations that

had begun to affect other courses in the area. Lester just cracked a

smile, and called me a know-it-all. But a few days later a ball that was supposedly hit by a "famous" golfer arrived in the mail. Hmm.



95 Chestnut Ridge Road Montvale, NJ 07645 201-307-9700

Harold Puckett, AgrEvo Sales Representative

Remember to read and follow label directions carefully. 
© 1998 AgrEvo USA Co.

he winter of 1997-1998 will undoubtedly go down in the annals as one of the all-time lousiest for growing grass. The much-proclaimed effects of El Niño has in some way adversely impacted everyone's life. Unfortunately, those of us who grow grass for a living are more severely impacted

than most. The worst affected in our ranks will be those who have paid the ultimate price... losing their jobs!

I find it extremely ironic to listen to the general public's willingness to accept higher produce prices in the grocery store due to the effects of our recent weather patterns.

On the other hand, the golfing public has no sympathy for the difficulties of producing acceptable playing conditions under the same weather conditions. This belies sound judgment and good reasoning. The vast majority of the comments I have heard revolve around the fact that we are making excuses in an attempt to protect our own positions.

In southern Palm Beach County where I am employed, a group of Green Committee Chairmen met in early February to discuss this very issue. The were addressed by Dr. Monica Elliott, who so eloquently described to them, in layman's terms, the difficulties with growing grass under these conditions. This presentation was arranged by a superintendent, who like many of us needed an "outside authority" to

authenticate what we had been relaying to our superiors.

Why then are superintendents losing jobs? With total disregard for the scientific evidence that has been presented from IFAS, the USGA and the GCSAA, some of our brethren are losing their positions at their respective clubs. It is truly unfortunate. I often wonder if our profession is held to that much of a higher standard that any other.

We all hear of corporate downsizing that seems prevalent in today's society. I would dare to venture that we are more the norm than the exception. In no way do I condone this activity, but as highly paid professionals, we must accept the fact that this is the way the business world operates.

I would hope that the GCSAA would come forward with acceptable industry standards for our employers to follow. It was suggested that your state association spearhead this activity. For the time being, we are taking a wait-and-see attitude on this subject.

#### **Fond Farewell**

Switching subjects. Along with many members of the FGCSA, I want to offer the best wishes to Dan and Irene Jones as they head into retirement. Dan is retiring this summer after spending 18 years at the Banyan Golf Club. We all owe Dan and Irene a debt of gratitude for their tireless efforts in taking the *Florida Green* magazine to its place of national prominence that it enjoys today. Dan and Irene, it is our entire association's sincere wish that the Good Lord will look kindly on both of you as you enjoy your retirement years.

# The Winter of our Discontent

# PERHAM'S PAGE



Michael Perham, CGCS Vice President FGCSA



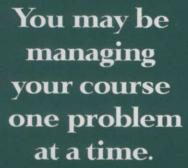
You've got Poa on 3.



Summer Patch on 7, 8 and 9.



Crabgrass on 6.





Fire Ants on 8.



Turf Stress on the back 9.



Pythium on 13, 16, 17 and 18.



And a Board Member on the first tee.

At Novartis, we're committed to continually bring you innovative products. And now we'd like to introduce an entire series of products — the Novartis Total Turf Program.

Finally, all the tools you need to manage your course from tee to green and all season long can be found in one total program.

#### Primo.® The ultimate foundation for turf.

The Novartis Total Turf Program begins with

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Conditioning. That's
because extensive
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that treating with
Primo is the best way
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course and strengthen turf in advance to
cope with extreme
conditions such as
drought, heat and

disease, that make up a typical season.

# Barricade.® Crabgrass control for the entire season, North and South.

Simply put, Barricade is the longest-lasting and best-performing preemergence herbicide for the control of Crabgrass, Goosegrass and Poa Annua. That's because Barricade has low solubility and volatility, meaning it stays where you put it in the weed germination zone.

Plus, it won't stain your golf course.

# Finally, a disease management program that lasts all season long.

In a revolutionary water-based microemulsion formulation, new Subdue® MAXX® systemically and effectively combats Pythium and Yellow Tuft. Plus, Banner® MAXX®, using the same formulation technology, controls Dollar Spot, Summer Patch and Anthracnose, as well as 15 other turf diseases.

For additional protection against diseases, the

Novartis Total Turf Program also includes Sentinel,® for the longest-lasting protection against 14 major turf diseases including Brown Patch and Dollar Spot on fairways.

We combine even more protection.

Like Alamo, a sys-

temic fungicide for the prevention and treatment of Oak Wilt and Dutch Elm Disease.

And for insecticides, there's Award,® an unstoppable insect growth regulator that controls Fire Ants.

The Novartis Total Turf Program. An entire program to help you manage the entire course.

To start your Novartis Total Turf Program, call 800-395-TURF for the name of your Novartis sales representative or your nearest Novartis distributor.

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# There's Much to Learn While Doing Time in Anaheim

Poll the attendees of GCSAA's Conference and Shows and you'll find Anaheim near the bottom of the venue popularity chart. After you've been to Disney World, tiny Disneyland isn't much of a draw. Couple that with infamous southern California freeway traffic woes and this destination begins to lose some its luster as an after-seminar-hours "fun stop" on the conference rotation.

With a little local knowledge or exploring though, it's not hard to find some excellent restaurants like Orange Hill or Orange Hill Mining Company which offer some spectacular views of the valley during dinner.

But business is business and only a handful of convention centers in the Sunbelt can house a conference our size. As convention centers go, Anaheim fulfills its primary duty and it was great to walk out the side door of the hotel and cross the street into the classrooms and show floor.

Learning is the primary goal of attending this event and learning opportunities abound in every nook and cranny. It doesn't matter if you're in a seminar classroom, an open forum, press conference, special session, a booth at the trade show or just networking after hours over coffee, sodas or a beer. The information flows and the knowledge grows.

You have to plan and



Florida Green editor Joel Jackson, left, joins other award-winning editors from around the country for a group photo at the GCSAA Newsletter Editors' Forum in Anaheim.

prioritize most of your educational sessions. So I always celebrate the serendiptitious pearls of wisdom picked up in lobbies, restaurants, and receptions where the grapevine bears the juicy fruit of insider information and legends of the business dispense experienced observations and sage advice in the warm and friendly conversations of kindred souls.

The theme for the 1998 conference was "Lights! Camera! Action!" Here are some sound bites and headlines:

#### Florida superintendents receive awards.

• Darren Davis, GCS Olde Florida GC, was presented the GCSAA Leo Feser Award for best GCM article, "Sowing the Seeds of Knowledge," which discussed his program of educating school children about the benefits of golf courses.

• Jeff Ball, GCS Panama City CC, and Bob Bittner, CGCS, The Club at Pelican Bay, received GCSAA's Environmental Steward Awards as Regional and Merit Winners respectively for the Florida Region.

• Editor Joel Jackson, CGCS, accepted the Best Overall award in its category for the Florida Green magazine in GCSAA's Newsletter Editors Contest.

#### Celebrity sages

· Keynote speaker Peter Iacobsen announced that he would like to be the first professional golfer to donate \$25,000 to the "Investing in the Beauty of Golf" campaign. Jacobsen then reminded clubs that the proper green speed for a course is dictated by the original design, not a Stimpmeter. Speeds of 10, 11, 12 and higher at Augusta are ridiculous, he said, and green-speed wars between clubs is stupid and contrary to the spirit of the game and the design of courses.

• Ken Venturi humbly accepted the Old Tom Morris award at the banquet Feb. 7. Inspirational for overcoming numerous personal challenges and tragedies in his life and career, Venturi had these comments: "The biggest fear

I would have as a superintendent would be of the man who sits behind a desk for 25 years and then is voted on the green committee and overnight becomes an agronomist. Those are the people that scare me."

• Brad Klein on how superintendents can get more attention for the good things they do:

"Typically, superintendent issues are low on the list of a golfer's priorities. Make sure your story is of real importance. Use good visuals. Create reliable and credible relations with journalists. Invite journalists to play a round at your course. Return all phone calls.

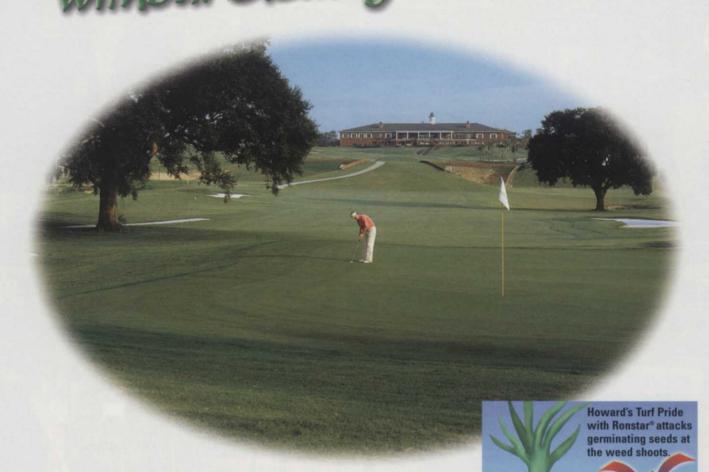
"Be honest in your dealings with journalists.
Don't always expect good news. Be able to live with criticism. Write more articles in club newsletters. Interact with players on the first tee.
Call in to radio talk shows.
Write tips for local newspapers. Speak at garden clubs."

• Eddie Albert, actor and star of the television show "Green Acres," has been an advocate of soil conservation for 25 years.

"The topsoil is the most important thing on earth. Once its gone, its gone forever" he said. Albert has spoken about topsoil conservation at more than 60 universities. He said he is at the trade show to meet superintendents because "they are the people who are making a difference and I would like to thank them."

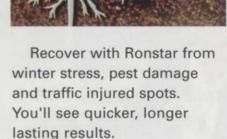
• Steve Mona says influential golfers need to understand the value of superintendents and that the association should influence their thinking in this regard.

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The solution to your weed problems lies in the seedlings, not at the roots. That's why Howard's Turf Pride with Ronstar is better than DNA's for pre-emergence broadleaf and grassy weed control.

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# Beneficial Microbes® The Natural Solution

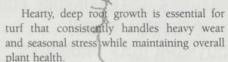


"In the past year that we've been using the biological products from Green-Releaf, we've only made one fungicide application. That's quite a contrast from our previous program where we were applying fungicides on a

14 to 21 day schedule. We typically have problems with diseases such as rhizoctonia and pythium, as well as a few others, but since we started this biological program we just haven't had the disease problems. It's been nice to get away from a scheduled fungicide application program. It saves money, and lessens the impact on the environment."

Superintendent John Johnson of South Seas Plantation, Captiva Island, FL.

John's experience illustrates why more superintendents around the world now specify GREEN-RELEAF\* Beneficial Microbes\* as the leading nontoxic course-conditioning product.



Upon application, GREEN-RELEAF® Beneficial Microbes® move rapidly into the root zone forming a symbiotic relationship with plant roots. The resulting microbial network improves plant performance by facilitating the uptake of nutrients and water, while simultaneously aiding in pathogen defense.

GREEN-RELEAF® products increase your turfs natural microbial activity for a vigorous, hearty soil ecology which lessens the need for chemical controls. Since our Beneficial Microbes® also amplify nutrient uptake, you can apply less fertilizer and still produce higher quality turf.

#### Other advantages include:

- 50% faster seed germination
- Fast, full overseeding and grow-in
- Higher tolerance for heat, cold and physical stress
- Reduce seed rates by 25%
- Deeper root growth

Take our no-risk 90-day challenge:

Test the GREEN-RELEAF® program on your course and see the results of higher beneficial microbial populations within 90 days! If agreed

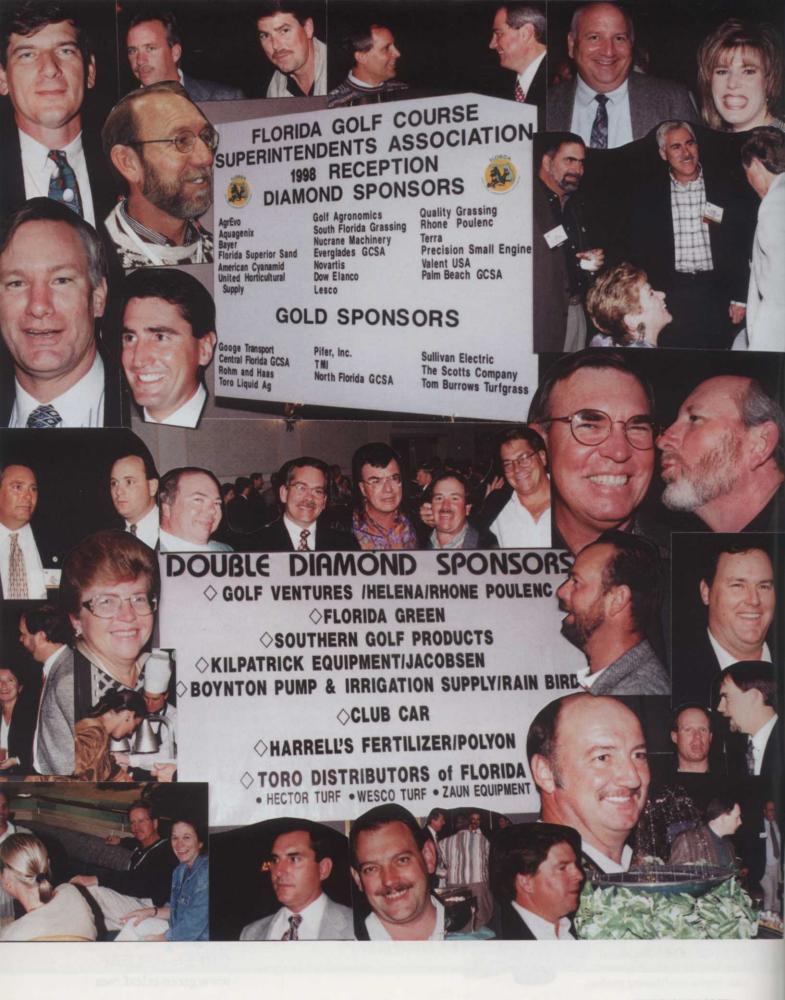


that there were no quantitative results after 90 days, GREEN-RELEAF\* will donate the entire cost of your program to your local chapter's research & development or scholarship fund. To accept this challenge or for more information, please call

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# GEASY BEING TEASY BEING



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Greens are among the most heavily trafficked areas on your course. They're also among the most susceptible to heat stress and disease. And, acre for acre, they account for more manpower and treatment costs than any other turf you maintain.

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Flexx<sup>™</sup> is a potent, dry water soluble biostimulant with fully-chelated micronutrients, beneficial bacteria and Yucca extract wetting agent. The fast-acting Flexx<sup>™</sup> formula stimulates root growth, improves resistance to stress and disease, and promotes greener, denser turf that plays more consistently.



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|                        | Flexx* Dry Soluble Premix | Leading Liquid |
|------------------------|---------------------------|----------------|
| Standard Package Size  | 7 lb. box                 | 15 gallon drum |
| Cost/Acre/Application* | \$49.75                   | \$65.40        |
| Biostimulant Package   | YES                       | YES            |
| Micronutrient Package  | YES                       | YES            |
| Yucca Wetting Agent    | YES                       | YES            |
| Beneficial Bacteria    | YES                       | NO             |
| UPS Compatible         | YES                       | NO             |
| Extended Shelf Life    | YES                       | NO             |
| Heat/Freeze Tolerant   | YES                       | NO             |
| Easy to Mix/Apply      | YES                       | NO             |

\*Based on suggested manufacturer's list price. Prices subject to change without notice.





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Superintendents and players alike appreciate greener, denser, healthier turf. And that's exactly what Flexx™ delivers. In a recent trial at the newly renovated Royal Pines Golf and Country Club, Flexx™ transformed ravaged greens into quality playing surfaces within weeks, so that the damaged greens did not have to be replaced.



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66As a result of applying Flexx™
to the damaged greens, I noticed
within a week a definite change
in the color, consistency and
growth rate of the grass.
The grass had become darker,
denser and was growing more
rapidly. Not only did I notice
the improvement . . . but
the players on the course
commented, as well. \*\*29

Ken Burnette, Golf Course Superintendent Royal Pines Golf and Country Club, Beaufort, SC



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LCCC 6th Annual Endowment Tournament Raises \$10,000

Lake City Community College alums met in Naples to raise money for their alma mater. The Lake City Endowment fund was started in the wake of budget cuts to allow the golf course operations program to progress without missing a beat. This year's Tournament Committee consisted of co-chairmen David Fry and Glenn Zakany; Diamond Sponsors, Scott Hamm; Gold Sponors-Resort Packages, John Johnson; Host Superintendent, Jerry Baker; Raffle Prizes-Skins Game, Odell Spainhower; Raffle Prizes-Pairings, Dick Bessire; Public Relations, Brad Walters. All LCCC photos by Joel Jackson.



Co-chairman Glenn Zakany, left, announced that this year's tournament proceeds should be close to \$10,000. Mike Lee, right, representing LCCC, thanked the sponsors and participants for this continuing event which has raised \$50,000 for the endowment fund.

"We need to educate employers as to the problems facing superintendents, gain their understanding and increase their respect for the superintendent."

• Dan Quayle chided some "environmentalists" for spending more time in offices than out in the field. Quayle said, "Environmentalists should go out and see how superintendents are working to enhance and conserve the environment. This success story needs to be told."

#### ADA and Golf

The most important thing that golf course superintendents need to know about the 1990 Americans With Disabilities Act (ADA) is that they have considerable discretion to implement the rules based on research and common sense. Common sense is the key word here, according to Cynthia Kelly Smith, GCSAA's government relations counsel.

#### Semi record

Attendance records were set for the educational seminars, but overall attendance did not surpass last year's in Las Vegas.

II

# **Education, Fund-Raising Start Fast**

Education got off to a fast start in 1998 with seven formal conferences and seminars around the state in January with more to come in the spring.

In February, many Florida superintendents took oneand two-day college-level courses at the GCSAA Conference in Anaheim, Cal. to meet Class A level requirements or to earn continuing education credits to renew their Certified Superintendent status.

Local and special-interest fund-raising events also got rolling and will continue throughout the year. These events, usually a combination of education and golf tournaments, generate the life blood revenue that pay for turf research, scholarships, endowment funds and community projects related to golf or the environment.

Peter Blum of Valent USA Corporation launched FGCSA's 1998 fund-raising at the Winter Board Meeting with a \$7,500 check from Valent's Right Course 1997 rebate program, which will be in effect again in 1998. Turf research dollars will be earned through the sale of Valent's Orthene TTO and Pinpoint products.

# Central Florida Event Nets \$4,000 for FTGA Research

The Interlachen County Club in Winter Park once again played host as Central Florida Chapter superintendents invited club officials to a day of education and golf to raise money for research and equipment at UF's Envirotron Laboratory.

Guest speaker Tim Hiers, CGCS, of the Colliers Reserve Golf Club in Naples regaled the audience with a fun- and fact-filled slide show on the importance of environmentally friendly golf course management. Hiers's rapid-fire delivery of common sense and easy-to-understand technical information had the group listening.

Hiers summed up the

# 1998 FGCSA RECEPTION

# in ANAHEIM

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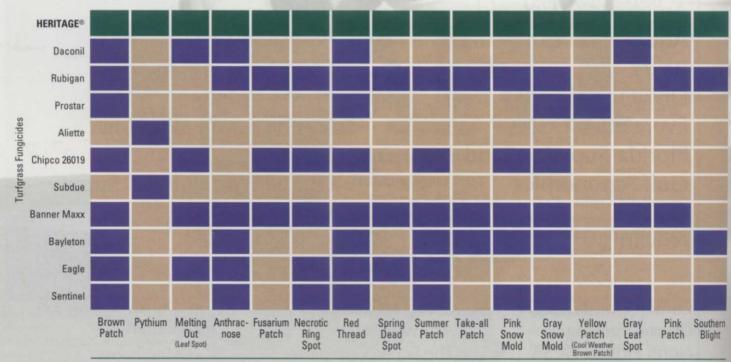
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Superintendent Jerry Baker (right) and his Assistant, Tim Haskins had the course in great shape for the competition. An IGM managed facility, the Pelican Strand CC is a 7,400 yard Gordon Lewis design with FloraDwarf greens and GN1 bermuda tees and fairways. It was the first opportunity many of the golfers have had to putt on one of the new ultra-dwarf grasses. They were rolling very smooth and true.



Winners A Flight: Odell Spainhower, left, and Walt Shirey



Winners B Flight: L-R Jim Leiseberg & Gary Sorenson



During lunch at the Interlachen CC, Cary Lewis, CGCS, left, congratulates Tim Hiers, CGCS on his presentation to the joint audience of superintendents and club officials at the 10th Annual Central Florida FTGA Research Tournament. Photo by Joel Jackson.

challenge of communicating the golf superintendent's message to employers, golfers and the public by saying, "People not involved in the business don't have the time or interest in learning the technology behind what we do. We have to find ways to get our point across in terms they can visualize and understand.

"Don't tell a disgruntled club member the course is closed because it rained eight inches yesterday. Tell him it was like the course was subjected to the equivalent of Niagara Falls falling on the course for a minute."

After the educational program, the group dined on the always-fabulous gourmet lunch on the veranda.

Following lunch the twoman scramble golf event was held with Tom Trammel, CGCS and his partner, Brad Hauer of MetroWest CC taking low gross honors in the First Flight with a score of 66. Other gross winners: Second Flight, Buck Buckner and Brent Jorgenson of Isleworth CC (69); Third Flight, Jim Schleutker and Tom Brewer of La Cita CC (74). Net Winners:1st Flight, Barry Schurman and Ron Parris of Timacuan CC (65);

2nd Flight, John Lammerish and Art Morgan of Orange Lake CC (65); 3rd Flight, John Kopack and Tom Forbes of Alaqua CC.

# FTGA/IFAS Run 5 Regional Seminars

The Florida Turfgrass in conjunction with the University of Florida's Institute of Food and Agricultural Sciences (IFAS) sponsored a series of five turf management conferences around the state.

Featuring speakers from universities and industry the programs dealt with topics ranging from weed and insect control to regulations and products in the future.

These conferences were held in West Palm Beach, Ft. Myers, Sanford, Tampa and Jacksonville. Attendees earned CEU credits toward renewal of their Commercial Applicators Licenses.

# Ultradwarf Review at SW Seminar

The 1998 Southwest Florida Turfgrass Management Seminar sponsored by the Everglades GCSA drew a crowd of 180 to the IFAS program at the Sheraton Thank you to the following sponsors of the

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Regulatory compliance guru Bert McKee of United Horticultural supply spoke to a crowd of nearly 400 superintendents, spray techs and lawn care operators in Sanford. The FTGA and IFAS sponsored a series of five regional turf seminars across the state in January and February. Photo by Joel Jackson.

Place in Ft. Myers Jan. 20.

Topics included an update in biological control of mole crickets. Modest successes have Dr. Howard Frank returning to South America to look for cold-hardier strains of parasitic nematodes.

Trapping and monitoring statistics show that some biocontrol agents such as the red-eyed fly and parasitic wasps have established populations and spread naturally. Mole cricket populations are down slightly.

Dr. Jerry Sartain discussed projects at the Envirotron and his evaluation of several new fertilizer materials on turfgrass. Research biologist Ernesto De la Vega of the Ft. Myers Hyacinth Control District urged the audience to use an integrated management plan of mechanical, chemical and biological controls to keep waterways clear.

Dr. Dennis Howard, environmental administrator of FDACS in Tallahassee discussed recommendations and common-sense practices for fill and wash pads and chemical storage facilities. A local professor, Dr. William Berndt from Edison Community College, spoke about creating a turf program to help train people for the turf job market with an eye to a degree program.

The highlight of the afternoon portion was a panel discussion of the new ultradwarf grasses now being installed on courses in the area. Matt Taylor gave an account of the grow-in of the Champion variety at the Bonita Bay East project.

Darren Davis talked about the preparations and precautions taken to establish the test green at Olde Florida that has four of the new grasses. Rick Tatum discussed rebuilding and replanting his greens on the Bobcat course at The Forest.

While each superintendent had some unique experiences and observations, one thing they all agreed upon was that the new ultradwarfs do not offer a miracle cure. They encouraged superintendents contemplating a grass change to first grow and maintain a large plot under playing conditions to learn how the grass responds to different environmental and cultural pressures.

The new grasses aren't necessarily easier to manage, they're just different!

# Palm Beach Runs Assistants' Seminar

The Palm Beach Chapter's

annual turfgrass conference for the assistant superintendents and key crew members on Southeast Florida golf courses is held on the Palm Beach Community College campus and is moderated by adjunct professor and turf consultant Joe Konwinski.

Konwinski, the feisty 82year-old former superintendent, took the class through an anecdotal history of turf management. The patriarch of South Florida turf's wit made the day pass quickly.

The Palm Beach program has been providing muchneeded training and education in turf management to key golf course employees for 19 years.

# FGCSA Actions Look to Future

The FGCSA moved at the Winter Board Meeting in Orlando to strengthen its position in the future. In a morning meeting with officers and board members of both the FGCSA and FTGA, Joe O'Brien of the GCSAA facilitated a meeting to build on the associations' common areas of interest.

Recognizing that the most sucessful turfgrass associa-

tions partner with a strong university-based turf program, both associations see the need for the University of Florida to get the turf program organized and moving forward. The slow process of naming a coordinator for the University of Florida's turfgrass program has made supporters in both camps anxious and impatient.

The FTGA with its Research Foundation is the main institution for dealing with the university since it encompasses all members of the turf industry. Both associations have vowed to improve communication to build a stronger turfgrass program which will benefit everyone. Both associations agreed to have a board member sit in on each other's meetings to improve continuity, and the FGCSA volunteered to organize the golf turf education portion of the FTGA Conference and Show.

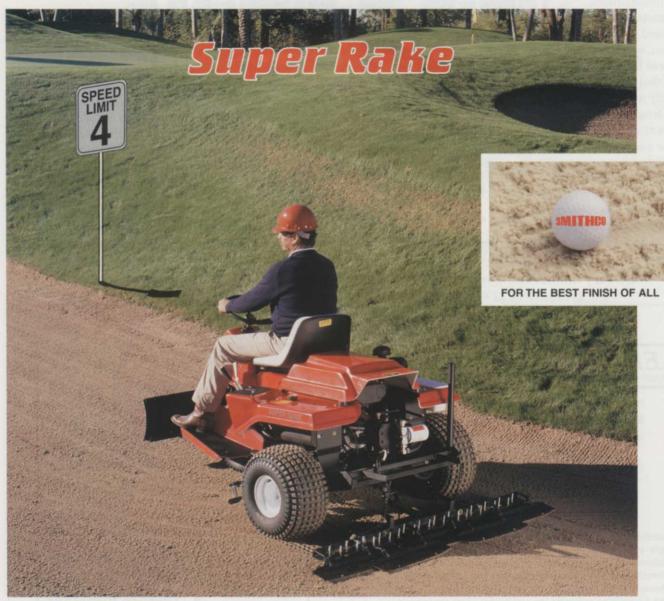
Later that day in the FGCSA board meeting, President Joe Ondo opened the discussion on the subject of creating a new staff position for the association. The Board, acting on several



Instructor Joe Konwinski, at podium, introduces superintendents (from left) Tom Vlack, CGCS; David Court, CGCS; Randy Bushway; Steve Kuhn and Jeff Klontz, all of whom answered questions at the Palm Beach Chapter's 19th Annual Turfgrass Conference for assistant superintendents and crew members. Photo by Joel Jackson.

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past Long Range Committee recommendations and on the results of the FGCSA Strategic Planning Meeting last November, agreed to create the position of director of communications.

A motion was made and approved to appoint Joel Jackson, CGCS, current editor of the Florida Green to fill that position. Jackson recently took early retirement from the Walt Disney company after 20 years of service and has been working with members of the Board to develop a job description for the position. The position was approved for a one-year trial period to evaluate the benefits and successes.



FGCSA President Joe Ondo, CGCS, left, accepts a \$7,500 donation for turf research from Valent's Peter Blum for Valent's 1997 Right Course rebate program. The FTGA also received \$7,500 from Valent. Photo by Joel Jackson.

Initially, duties of the director will include being

the full time editor of the Florida Green magazine and Green Sheet newsletter. The editor will now be able to cover more events and report on the positive contributions made by each local chapter. Additionally, the director will work on public and media relations, Inter-chapter communications and help all FGCSA committees in membership, education, government relations, allied association relations and fund raising.

In the past two months since he began, Jackson represented the FGCSA at meetings of the new Florida Golf Alliance; a coalition of Florida pesticide users to respond to the impact of the Food Quality Act; golf media relations and ADA forums in Anaheim; given an interview to *Golf World* magazine on the effects of El Niño and attended several chapter events.

Jackson has also created a combined FGCSA/FTGA calendar of events and distributed it to all chapter external vice presidents to share with members. Current projects include creating an FGCSA mission statement and job descriptions for officers and committees; building a network of media contacts throughout the state; providing frequent informational bulletins and reports to the officers and board members.

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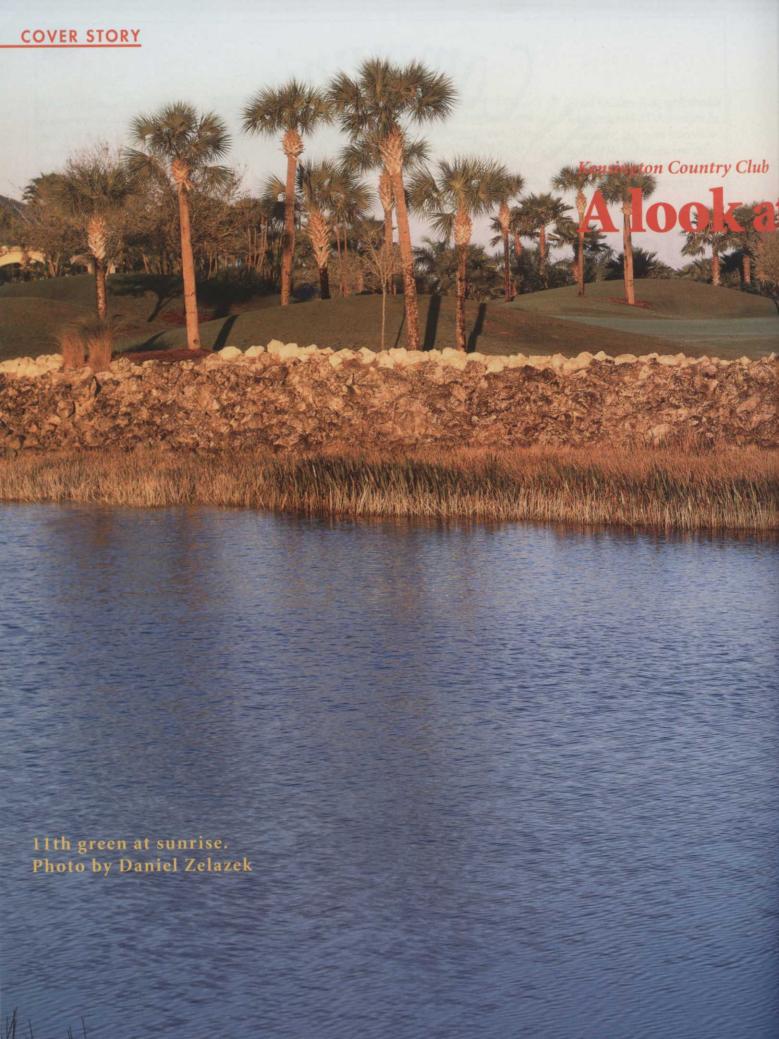
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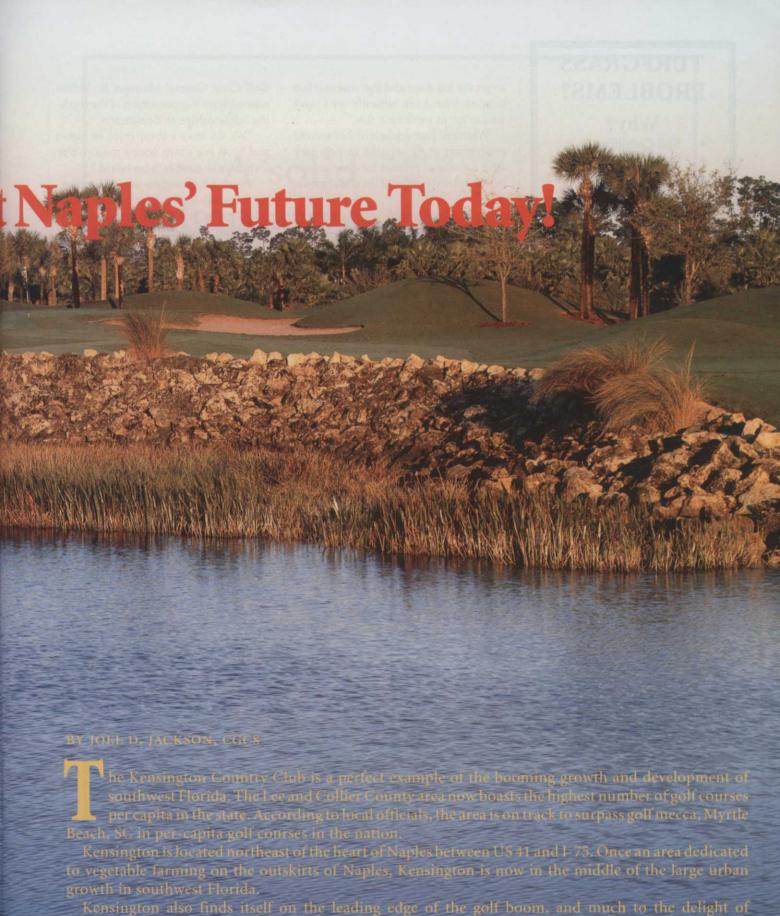
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superintendent Scott Whorrall, he finds himself part of a ownership/management team dedicated to providing a quality facility. Whorrall says, "Our owner, Mr. Anton Steiner, sees that we have what we need

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36 Years Experience Jensen Beach, Florida Ph: (407) 692-1221 to get the job done and that makes it fun to work here. I can honestly say I can't wait to get to work each day."

Whorrall just celebrated his second anniversary at Kensington in February after moving over from his assistant superintendent position at the Olde Florida

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6001 S.W. 19th STREET PLANTATION, FL 33317 MOBILE: (407) 479-9417 Golf Club. General Manager Bo White echoed Scott's appreciation of the working relationships at Kensington,

"We do have a great team in place, and Scott is a sharp young man. We're fortunate to have him on board."

Visiting Kensington was an interesting contrast to the many older established clubs and superintendents that have been profiled in recent cover stories. As we get closer to the new millennium it was good to take a look at a slice of the future of our business.

Once inside Kensington's gates, the rolling Robert Trent Jones, Jr. design offers golfers and residents an exciting visual contrast to the naturally flat, piney woods of the surrounding area. There are always a tradeoffs when you try to improve on Mother Nature. Those contours and slopes that provide interest and challenge to the golfers also affect Whorrall and his staff.

"We can't use any large pull-behind



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A Company You Can Grow With

# Scott Whorral

Originally from: Grant Park, Illinois.

Family: Fiance, Paige Barriteau.

Education: A.S. Golf Course Operations, Lake City Community

Employment history: 1996 present Superintendent

College.

Kensington Golf and Country Club, Inc.; 1993 - 1996 Assistant Superintendent Olde Florida Golf Club, Naples, FL; 1992 OJT Loxahatchee Club, Jupiter, FL; 1991 OJT Butler National Golf Club, Oakbrook,IL; 1988-1991 crew member Minnie Monesse Golf Club, Grant Park, IL

**Professional affiliations:** Member- GCSAA; FTGA; FGCSA Everglades Chapter.

**Honors/Awards:** Kensington being picked for Florida Green Spring 1998 cover story.

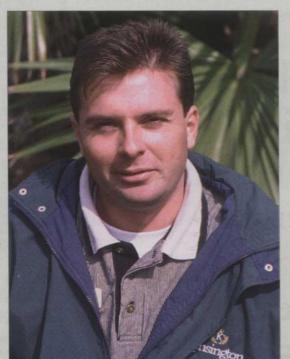
People who have influenced your life and career: My mother and father for supporting me through college and instilling a strong work ethic. Jim Gerlach, Superintendent at my first golf course for showing me the time, dedication and hard work it takes to be a successful superintendent. My fiance for tolerating, supporting and understanding the business.

How did you get into the business: I worked as a cart hustler at a golf course, and was offered a shot a mowing roughs. From that point on I knew what profession I was going to pursue.

Goals: To become certified, and to continue to strive to make
Kensington the very best it can possibly be. Philosophy: Always
keep an open mind. The business is changing so rapidly. Even
over the past five to ten years, incredible strides have been taken.
Also, no one works for me; they work with me. Advice: Surround
yourself with other professionals.

Memorable moments: During the flood of 1995, over 44 inches of rain fell in less than three months. It was then that it really hit home: no matter how well you do your job, you are still at the mercy of Mother Nature in the end. It was the first and only time I've seen fish swimming on a green.

Hobbies and interests: Golf, baseball and boating.



mower combinations," Whorrall explained. "We rely on 3- and 5-gang, self-contained, lightweight mowers to negotiate the slopes. The use of elevated tees, natural rock walls, and native grass beds also necessitates a certain amount of hand work in mowing, trimming, and spraying to maintain a detailed appearance.

"With the golf course such a focal point of the community, we have two people dedicated solely to landscape maintenance on the course and two people who do what I call 'develop-

ment landscape.'

"They augment some of the work done by an outside contractor on entrance and common area ornamental beds. We also have one person dedicated to mechanical control of our waterways.

"We weren't satisfied with the degree of detail that our aquatic contractors could provide economically under contract, so we decided to tackle the maintenance in-house.

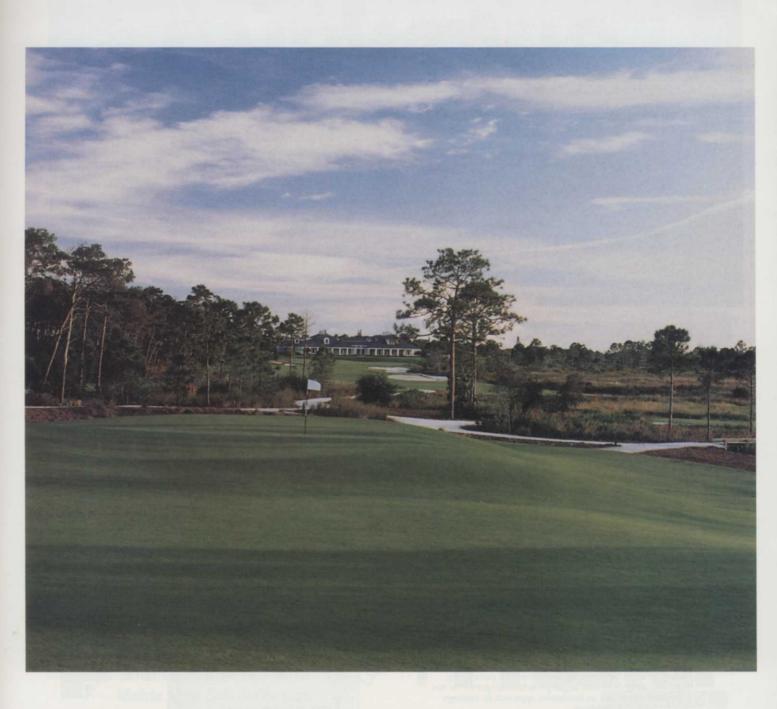
"Our spray tech does all the shoreline spraying where it won't affect the aquascaping. In the more sensitive and densely planted areas, our aquatic person hand-pulls and harvests obnoxious plants like cattails and torpedo grass.

"The torpedo grass is a legacy from the days when this area was a large tomato farm. We are looking into introducing grass carp to provide a threeprong approach: mechanical, biological and chemical control."

New courses always require some tweaking after they open and

# Wildlife inventory

Member of the Audubon Cooperative Sanctuary Program. Various bird boxes throughout property including bluebird, Great Crested Flycatchers, Screech Owl, Barn Owl, Wood Duck and bat houses. Multiple species of birds including wood ducks and resident ospreys. Raccoons, alligators, bobcats, rabbits, fox squirrels, various snakes and turtles.



123

The Medalist is a unique course with twelve acres of dwarf Bermuda and thirty-two acres of Greg Normans new GN 1. ROOTS 1-2-3™

Premix gave me the balanced nutritional program all in one container.

ROOTS 1-2-3™ sure made it easier to maintain the quality of turf we are looking for here at the Medalist. ROOTS 1-2-3™ makes a difference.

Tim Rappach
Superintendent
Medalist Golf Club



The massive and well-appointed clubhouse overlooks the challenging 18th green. Photo by Daniel Zelazek

Kensington is no exception. The original concept of extensive use of bahiagrass in the roughs and on tee slopes became unworkable as residual weed seeds in the soil began to overtake the bahia.

"After fighting an almost losing battle trying to keep the weeds and mole crickets out of the bahia areas

that were in play, we decided to replace the bahia with 419 to provide a denser stand of turf," he said. "It has worked out well for us."

The southern part of the Florida peninsula has another natural challenge to be overcome: limestone. The bedrock under 90 percent of the state is limestone.

Formed eons ago in the warm, shallow seas that occupied the area, limestone offers two specific challenges.

First, anytime you dig a hole or a ditch, you usually have to use a jack hammer and second, the calcium carbonate composition of the limestone raises soil pH to high levels that have to be addressed in fertility programs.





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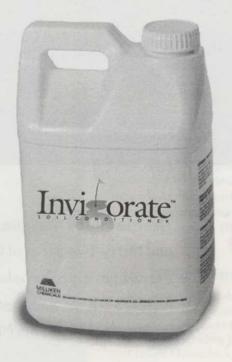
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- Agglomeration of the fines creates new macropores and larger soil aggregates

#### What are the results?

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Aquascaping of this littoral shelf on hole #7 provides habitat for fish and fowl. Note that some of the wading birds are foraging in the fairway and roughts for insects. Photo by Daniel Zelazek.



Once flat farmland, hole #2 wraps around a lake and skirts a stand of pine and cypress trees. The gently rolling golf course ties native areas to the growing Kensington community. Photo by Daniel Zelazek.

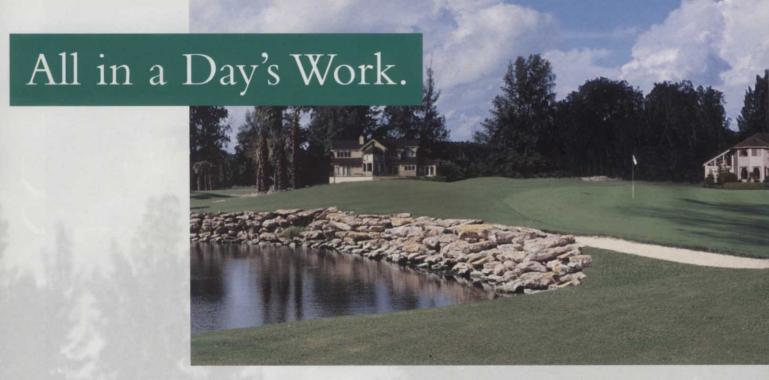
The first problem, having bedrock so close to the surface, has caused Whorrall some extra work.

"We have added several miles of additional French drains in some of our low areas," he explained. "We indeed have to use a jack hammer when the trencher comes across a large boulder in the path of a drain line or new irrigation line we are trying to install. The thin soil cover over some areas just doesn't allow the heavy rainfall accumulations percolate, so we help by adding more drains."

A unique feature of the Kensington drain lines was the use of stucco lathe, a heavy gauge wire mesh, to cover the pea gravel in the drain lines. The mesh keeps the gravel in place undisturbed by mowers and vehicles and allows the drain to stay open for maximum infiltration of the runoff.

Thin soil cover on some areas of the course also haunts Whorrall during renovation.

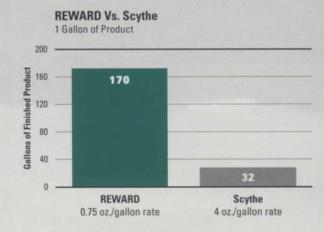
Whorrall said, "After we do our sea-



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Wetland bridge ties tee and green together on hole #3. Photo by Daniel Zelazek.

sonal aerifications, we often have to go back over certain areas with buckets and hand-pick chunks of limestone pulled up by the tines. It's kind of tough on mower bed knives if we don't do it.

"It's just one of the extra procedures we have to do because the rock wasn't capped with enough soil during construction."

As far as high pH in the soil, Whorrall has plans to continue to use sulfur-based fertilizers and install an acid injection unit on his irrigation system to help lower the pH.

Whorrall knows that growing grass isn't the only challenge he faces. Managing people and the company's assets for productivity are also part of the daily puzzle a superintendent must solve. One of his decisions in this area was a simple but very effective one.

"We used to send out four hand greensmowers and two mechanical sand rakes each morning," Whorrall said, "Now we send out only one man on a Sand Pro and he does only the fairway bunkers.

"The greensmowers mow each green and then hand rake the greenside bunkers. They are generally small, so it is not a big-time investment. We get a better result in the bunkers and we free up one man at the start of the day to get other projects done."

Getting things done wouldn't be easy for Whorrall without the help of his assistant, Paul Mollberg. "Paul is the key to our operation. He's unbelievable. I really appreciate what he gets accomplished for us."

Whorrall's crew — like so many these days — has an infusion of bilingual workers. Whorrall admits that he and Mollberg only habla Espanol un poquito, but the club offers English classes two nights per week to help the workforce become more effective employees and residents.

We mentioned earlier the support that the owner, Mr. Steiner, provides. One day he couldn't resist the temptation to get "hands on" with the golf course. Most of the fairway bunkers at Kensington are filled with crushed coquina shell.

Steiner just didn't like the look of this one fairway bunker complex with its white sand in contrast to the others, so he jumped on a bucket loader and cleared out all the sand, stockpiling it on a nearby vacant lot. Scott ordered more coquina and the conversion was complete.

Incidentally, those coquina bunkers serve as cart paths since there are no wall-to-wall paths on the course. The crushed shell is very firm so it adds a little roll to the tee shots and offers a good tight lie for recovery shots. Over 400 loads of the coquina shell were trucked in from Cocoa Beach during construction.

As a new head superintendent, Whorrall admits he learns something new every day and he pays tribute to the formal and informal education he has had along the way from mentors like superin-

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POLYON





### **Kensington CC**

Location: Naples, Florida.

Ownership: Kensington Park Development Corp. Playing policy: Private, 350 equity memberships.

**18 holes:** Par 71 at 6879 yards. Course Rating: 73.1 Slope Ratings: 135. **Designed by:** Robert Trent Jones, Jr. Constructed by: Golf Forms, Inc.

Opened: January 1994.

Management: Anton Steiner - Manager Director; Arlette Steiner - Manager Director; Jeff Mangan - C.O.O./General Manager; Bo White - Club Manager; Head Golf Professional - Richard Erick.

Major Renovations/Projects: Over 2.5 miles of subsurface drainage, mostly infairways in past two years.

Acreage under maintenance: 114 acres.

Greens: 2.7 Acres. Average size: 6,000 sq. ft. Turf type: Tifdwarf (Certified). Height of cut: Overseeded greens(.109 - .140), Summer (.150-.180). Overseeding: Cobra Bentgrass at 6 pounds per 1,000 sq. ft.. Green Speed Goals: 9.5 - 11.0 (Winter)

Tees: 3.5 acres. Turf type: Tifway 419 (Certified). Height of cut: Overseed (.250), Summer(.400). Overseeding: PhD Perennial Rye Mix.

Fairways: 30 acres. Turf Type: Tifway 419 (Certified). Height of cut: Winter (.450"), Summer (.400"). Overseeding: None.

Roughs. 70 acres. Turf Type: Tifway 419 (Certified). Height of cut: Winter (1.75"), Summer (1.0"). Overseeding: None.

Waterways/Lakes/Ponds: 54 Acres. Extremely high bicarbonates; currently installing pHairway injection system. We now maintain lakes in-house.

**Irrigation:** Source - Deep well. PSI pumping station. Network 8000 Control system. Toro 650, 670 series heads. 970 total heads 100% turf coverage.

Staff: Total including Supt. 23 including landscape crew. Assistant Superintendent: Paul Mollberg. Mechanic: Richard Hodges. Pest Control: Jeff Boswell. Irrigation: William Flippen. Administrative/clerical: Sabina Musci.

Others you may wish to recognize: Golf Forms, Inc. - Excellent course construction; no shortcuts. The ownership of Kensington is very willing to invest in the quality and maintenance of the golf course, and that makes it fun to work here.

**Special or unusual conditions:** Extreme elevation changes creates difficult-mowing patterns, watering practices and cultural practice situations. Some holes are built on only inches of fill over a limerock base making aerifications messy and trenching very difficult.

Interesting or unusual features: Over 400 semi-loads of crushed Coquina shell trucked in for waste bunkers from Cocoa Beach, Florida. Over one million cubic yards of fill moved during construction of golf course.

Maintenance equipment: Greens-Toro 1000 walkers year round. Tees-Toro GM 3100's May-October, Toro 1000's November-April. Fairways: Toro 5100's year round. Roughs: Toro 4500, Toro 2300, Toro 2600. Toro Workman Sprayer, Club Car and Kawasaki Mule Utility Vehicles

**Cultural practices:** Aerification - Greens 4x year with Toro Walk Aerifier. Fairways 6x year Toro 687. Roughs 4x year Toro 687. Verticut fairways 2x year, roughs 1x year.

Topdressing - Greens 15-18 times/year w/Terra Topper; tees, collars & approaches as needed. Spike greens 1x week on overseed. Annual Fertility - Greens-Nitrogen 10#/m2; Potassium 36#/m2; Foliar applications biweekly. Tees: 12-14# N/m2 and 28-30# K/m2. Fairways and Roughs 8-10#N/m2 and 22-24#K/m2. Supplemental fertigation for the above. Total IPM pest control approach including two wall-to-wall preemergent herbicide applications of Ronstar.



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Because of the sensitive nature of the extensive aquascaping on the course, Kensington decided to do their waterway management in-house and use more mechanical controls. Photo by Joel Jackson.



Here's a great idea of using stucco lathe over the top of French drains to keep the pea gravel in place and keep the drain lines open for maximum efficiency. Photo by Joel Jackson.



A very unique location for a putting green! Photo by Joel Jackson.

### Kensington Snapshots by Joel Jackson



Installation of Wood Duck boxes helps to further enhance the golf course habitat. Photo by Joel Jackson.

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Limestone bedrock excavated during construction is used on several holes, shown here on #8, to stabilize steep lake banks and provide interesting texture contrasts. Photo by Daniel Zelazek



Without wall-to-wall cart paths, waste bunkers like these on hole #7 are used to keep traffic off the fairways. Photo by Daniel Zelazek.

tendents: Jim Gerlach at his first course in Illinois; Mike Sauls at Butler National and Phil Shoemaker at Loxahatchee during his Lake City OJT and Darren Davis at Olde Florida as an assistant.

Whorrall continues to learn as he must also deal with the effects of El Niño on course conditions.

"We overseeded with a 90-10 mix of bentgrass to poa trivialis and it has been a very tough year to measure success. As you can see we have a tight surface but the overseeding is thinner than normal.

"We may try a 50-50 mix next year. The bentgrass tends to be very persistent and difficult to transition out in the spring."

Overall the effects of El Niño so far were minimal at Kensington. But Whorrall, like all good superintendents, will continue to fret and worry and be vigilant until the weather improves. Meanwhile, the future of Naples continues to unfold and Kensington and Whorrall play their part in the growth and development of southwest Florida.



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How to Grow, Develop and Nurture Your Most Important Asset...

# Your Employees!

BY CHARLES CATALINE

Human Resource Consultant

henever I conduct a seminar on employee development, I usually begin by asking the attendees to tell me about the worst boss they ever worked for. You can only imagine some of the horror stories I've heard over the years in response to that!

If you thought about it for a moment, what would you say?

There is one common theme that I always seem to hear. It doesn't matter what industry, nor does it matter if it's an hourly wage earner or the vice president of a company.

It usually sounds something like: "My worst boss never gave me any feedback"... "I didn't know if I was doing a good job or not"... "I never knew where I stood."

Your employees depend on you for an accurate, clear and timely evaluation of their performance. They also look to you for assistance

There is one common theme that I always seem to hear. It doesn't matter what industry, nor does it matter if it's an hourly wage earner or the vice president of a company... "I never knew where I stood."

proving, maintaining or maximizing their performance level in their current position.

Daily interaction and feedback (good and bad) is extremely important. Human nature calls for each of us to be given affirmation of where we stand numerous times each day. Part of your responsibility as a supervisor or manager is to "stroke" your employees every day. Keep in mind that bad strokes are better than no strokes.

A tool that is often used to formally document an employee's performance is commonly called a "Performance Appraisal" or "Annual Performance Review."

If you or your organization is not using at least this one piece, you're not only doing your employees a disservice, but you may not have sufficient documentation to refute any EEO claim a disgruntled employee may file.

What I commonly recommend is the need for every organization to have in place a Performance Evaluation System.

This is not merely a play on words: a Performance Evaluation System should give your employees an op-

> portunity to advise you of their career objectives and to assess their own strengths and developmental needs.

opment Plan should be used with a Performance Evaluation









and

present...

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Greensmaster 800



Greensmaster 1000



Greensmaster 1600



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THREE CUTTING WIDTHS Each mower offers a unique solution for different mowing requirements. For your greens, choose from the tight 18" cutting width of the Greensmaster 800, or from the 21" Greensmaster 500 and 1000 models. And for your aprons and tees, the productive Greensmaster 1600 features a 26" width.

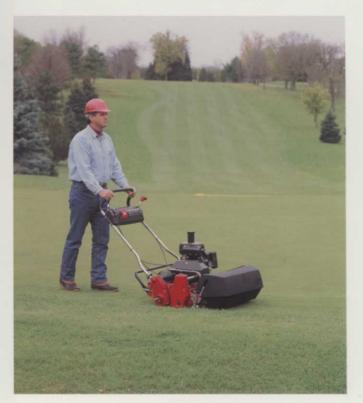
### **FULL FLOATING CUTTING HEAD**

For stepped or undulated greens, choose the Greensmaster 500 with a full floating cutting head. It gives superb ground following and a smooth, even appearance.



OPERATOR COMFORT A comfortable loop handle lessens operator fatigue, increases productivity. A "no tool" simple pull pin easily adjusts handle height to operator.

### MODEL PROFILE



**GREENSMASTER® 500** The 500 offers the best solution for courses with heavily undulated, stepped, or soft greens. The mower's full floating cutting head allows the 500 to follow contours uniquely in all directions even as the weight of clippings increases. Greens receive an even cut with the least scalping. Cutting width is 21".

**GREENSMASTER® 800** This all-new specialty mower offers a tight, 18" cutting width for specialty applications. Use the 800 to get an even narrower stripe, for extremely low heights of cut, or steeply carved greens.

**GREENSMASTER® 1000** Put simply, the 1000 has earned a legendary reputation for superior greens mowing worldwide. It's the envy of the competition, and the mower of choice for many prestigious courses. Count on the 1000 to cut lower than competitive models at the same setting. Cutting width is 21".

**GREENSMASTER® 1600** The 1600 provides a greater range of applications. Its 26" cutting width and extended height of cut range make this mower perfect for tee, apron and other formal turf areas, even large area greens. A dimpled traction drum provides better traction for off-greens cutting.

## ACCESSORIES



#### TRANSPORT TRAILER

Conveniently accommodates two walk greens mowers. Protects mowers and their fine adjustments during transport.

#### LIGHT KIT

Dual lights enable early morning mowing resulting in earlier tee times. (Not available for the 500.)

#### THATCHING REEL

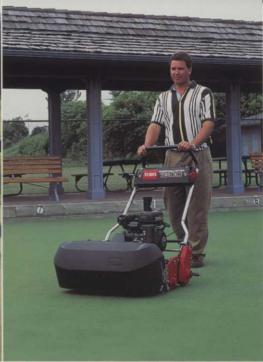
Eliminates need for riding greens mower with thatching reels, and associated risks of compaction and oil leaks. (Available for 1000 only.)

### **OPERATOR PRESENCE KIT**

Optional safety bail available to meet select customer requirements.

### GREENSMASTER® WALK MOWERS





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|                      | 500, #04130   | 800, #04048/1000, #04052  | 1600, #04060   |  |
|----------------------|---|---|--|--|
| Engine               | Kawasaki, 4 cycle, 3.7 hp (2.7 kW), air cooled OHV engine, iron cylinder sleeve.                                      | Kawasaki, 4 cycle, 3.7 hp (2.7 kW), air cooled OHV engine, iron cylinder sleeve.  | Kawasaki, 4 cycle, 3.7 hp (2.7 kW), air cooled OHV engine, iron cylinder sleeve. |  |
| Traction Drive       | Transaxle with multiple friction disc clutch<br>Spur gear differential transmits power to<br>2 rubber traction drums. | Belt powered, split drum with differential Idle pulley to engage disengage.       | Belt powered, split drum with differential Idle pulley to engage disengage.      |  |
| Reel Drive           | Universal drive shaft.  | Timing belts from countershaft to differential, drive drum and reel.              | Timing belts from countershaft to differential, drive drum and reel.             |  |
| Reel Construction    | Cutting Unit independent from traction unit and catcher. 3.5" [8.9 cm] diameter, 9 blade.                             | 11 carbon steel blades.<br>GRI000 only: Optional 8 blade.                         | 8 carbon steel blades.   |  |
| Maximum Ground Speed | Mowing: 3.8 mph (6.1 km/h)  | Mowing: 3.5 mph (5.6 km/h)<br>Transport: 5.3 mph (8.5 km/h)                       | Mowing: 3.5 mph (5.6 km/h)<br>Transport: 5.3 mph (8.5 km/h)                      |  |
| Weight               | 186 lbs. (84kg)   | GR800: 203 lbs. (92,3 kg)<br>GR1000: 208 lbs. (94,3)                              | 230 lbs. (104 kg) w/o transport tires.   |  |
| Width of Cut         | 21" (53.3 cm)   | GR800: 18" (45.7 cm)<br>GR1000: 21" [53.3 cm]                                     | 26" (66cm)   |  |
| Height of Cut        | $^{1/8}$ " (3.2 mm) to $^{11/16}$ " (17.5 mm) (optional bedknife to $^{1/16}$ ")                                      | GR800: 1/18" (1.56 mm) to 1" (25 mm)<br>GR1000: 5/64" (1.9 mm) to 1" (25 mm)      | 1/8" (.31 cm) to 11/4" (3.1 cm)  |  |
| Clip                 | .197" (5.0 mm)  | Standard 11 blade: .16" (4.1 mm),<br>GR1000 only: Optional 8 blade: .23" (5.8 mm) | .23" (5.8 mm) 8 blade reel.  |  |
| Bedknife Adjustment  | Reel adjusts down to the bedknife through two threaded bolts.   | Dual screw "click" adjustment to reel.  | Dual screw "click" adjustment to reel.   |  |
| Warranty             | Two year limited warranty. Refer to the Operator's  | s Manual for further details.   |  |  |



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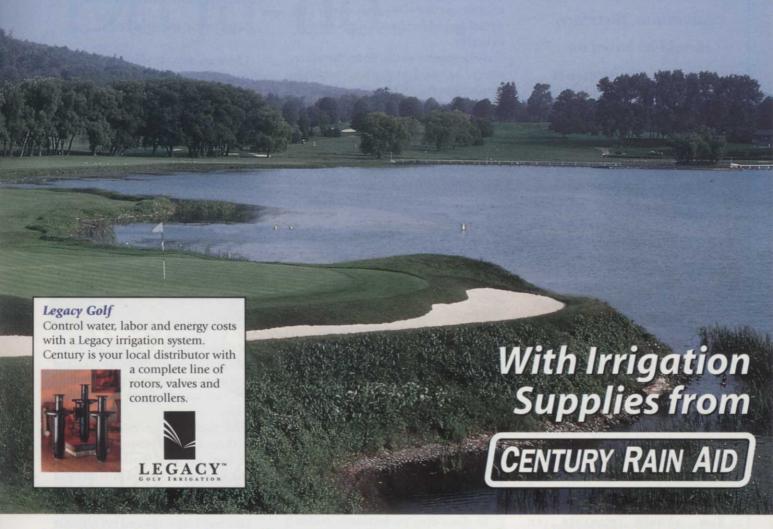






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Performance
evaluations, therefore,
should be based on
work accomplishments
(results.) They should
not be based on just
conducting activities
alone or for having
desirable traits,
education or
experience for their
own sake.

form. Working together, you and each employee can agree on specific developmental needs.

So the purpose of a Performance Evaluation System is to enable you to provide performance-related communication and to do development-related planning with employees. Together they serve as the formal documentation of this communication and planning.

You should measure an employee's performance in relationship to the expectations that you've established for his or her job and which you've fully communicated to the employee.

Obviously it would be unfair to evaluate an employee's performance if the employee did not have a clear idea of the expectations beforehand.

And although these are called the "supervisor's expectations," they need to be objective and fair.

The base should be a written *job* description and objective organization or department guidelines that apply to the employee's job.

Whenever these expectations change, they should be discussed with the employees involved.

Performance can be defined as the timely completion of the amount of quality work produced, given the conditions surrounding the work. This definition of performance is results-oriented.

Performance evaluations, therefore, should be based on work accomplishments (results.) They should not be based on just conducting activities alone or for having desirable traits, education or experience for their own sake.

Meeting a supervisor's normal expectations of the amount, quality and timeliness of the work produced within the job is the level which must be achieved as a condition of continued employment.

This means that an employee must achieve a minimal overall performance level rating or *meets supervisor's normal expectations*.

When performance falls short of these normal expectations, there is a performance discrepancy which must be addressed through some careful performance improvement planning.

In addressing this discrepancy, usually there are competencies in which the employee is lacking or deficient. These competency deficiencies are the target for trying to improve the employee's performance.

In discussing performance evaluations with employees, it is important to keep these key principles in mind at all times:

- 1. Maintain or enhance the employee's self esteem.
- 2. Listen and respond with empathy to the employee.
- Ask the employee for help in solving performance problems.

The performance evaluations you conduct with your employees are a vital part of your supervisory responsibilities. Your performance in this responsibility will more than likely be evaluated by your manager or supervisor.

# Strive to provide daily interaction and feedback to your employees...

There are two steadfast rules to use whenever rating an employee's performance:

- Concentrate on behaviors, not attitudes. You really can't see or rate an attitude. You can only rate on-the-job performance.

Well developed, trained and dedicated employees are the by-product of a good manager. Strive to provide daily interaction and feedback to your employees.

Give them the necessary tools to help them succeed, grow and obtain their own personal goals. A Performance Evaluation system provides you with an important tool to use with the employees you supervise.

One way I typically end my seminar is to ask participants to describe their favorite boss. Usually the answers sound something like: "Fair"... "Helped me get ahead"... "Kept me informed."

Hopefully, if one of your current or former employees attends one of my seminars, they'll be more anxious to speak up at the end of the class instead of the beginning.

Charles Cataline is the author of Performance Evaluation - An Effective and Efficient System for Managers and Supervisors copyright 1997. Currently in use at Berkley Hills C.C. For further information call (770) 935-4246.

Credit: Jan/Feb 1998 issue of GGCSA's Through the Green.

# Do Ju-no...

### There's A Free E-mail Service Online?

BY W. CRAIG WEYANDT, GCS The Yacht & Country Club of Stuart

**D**o you have a computer and mo dem yet? Are you on the Information Superhighway better known as the

Internet? I have talked to a lot of people who have both but for one reason or another are not on line yet. As a matter of fact, I was one of those people not that long ago.

I first got a computer at work to be

used for the irrigation system. There were going to be two important functions of the computer.

One was to control the irrigation field satellites through a program called "Maxi Stratus." The other is called "Pump Log," which allows me to remotely monitor the irrigation pump station.

Talk about handy! I can check the current operating pressure, flow coming out of the pump station, change settings on pressure, set lockouts, and even turn off the pump station from my office.

I was telling my uncle who lives in Arizona about all this technology that had been bestowed on me and how much I enjoyed it. He asked me, "Do you have Juno?"

I said, "You know what?"

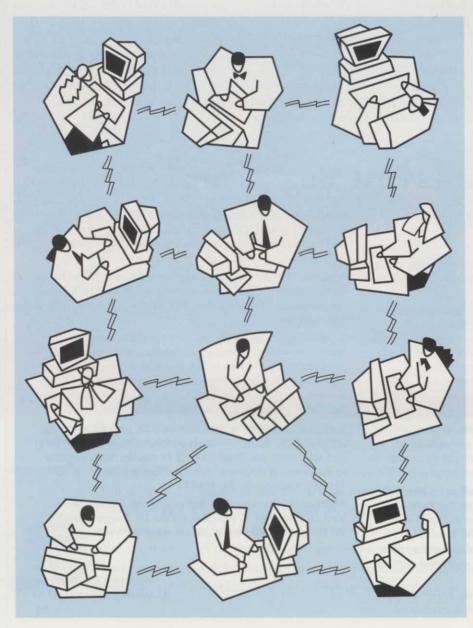
He explained, "No J-u-n-o. It's a free e-mail (electronic mail) service. It's not the Internet but you can send and receive e-mail for free."

I told my uncle that I was definitely interested and to please send me a copy. This would be an easy way for us to keep in touch with each other.

Juno is simply a free e-mail service. You can use Juno to exchange e-mail with anyone in the world who has an e-mail address. Because the service is advertiser-supported, you don't have to pay Juno a thing.

To use Juno, all you need is a 386 PC equipped with Windows, at least 4MB RAM 15 megabytes free on your hard drive, and a 9600-baud (or faster) modem.

There are more than 400 telephone numbers across the country for your computer to dial into. Approximately 95 percent of the membership has a local telephone number for Juno access.





Juno charges no monthly fees, no hourly fees, no membership fees, no per-message fees and no fees of any other sort. Juno sponsors pay so you don't have to.

And unlike other online services, Juno's free offer doesn't go away after 50 free hours, and you don't have to buying anything. It's free! Period!

With Juno your messages will go out over the Internet, meaning that you will be able to send mail and receive mail from anyone on the Internet or any of the commercial on-line services (such as American Online, CompuServe, Prodigy etc.).

However, Juno can't be used for online activities other than e-mail, such as "surfing" the World Wide Web. Also Juno cannot be used through an existing Internet account. To use Juno you have to get a copy of the custom software they have developed and then dial into Juno's central computers with your modem.

There are two ways to get a copy of this

software: (1) download a copy of the software from their website (http://www.juno.com) or (2) Call 1-800-654-JUNO to receive a floppy disk.

The disk will cost you \$8.82 which is a very small price to pay for free e-mail. If you download a copy and decide to keep your existing Internet account, you can use Juno to save on costly online hours for just sending e-mail.

I don't live in a big city so for me to connect to Juno's computers to send and receive mail, I have to dial a long-distance phone number. The phone call is always less than one minute long to send and retrieve mail. That cost me just 15 cents per call and, on average, I check my mail at least three times a week, which costs less than \$2/month.

Now that's affordable communication.

I have friends in Southeast Asia and its cheaper and faster for me to send e-mail than for me to send a single letter through the U.S. Postal Service which can take up to 14 days!

Remember when you send e-mail in the Continental U.S., it reaches its destination in less than 5 minutes; for overseas it may take up to 15 minutes.

I not only have Juno at home but I have it at work as well. My employers did not mind at all when they found out the cost and no worries of being connected to the Internet.

The Internet is a great tool but as with all tools, it can be abused. It has almost been a year since I received my free copy of Juno and I never thought it would happen to me, but I can now say that I am an e-mail junkie! I send and receive mail from colleges, business associates, family, and friends.

If this article helps you get started in using the Information Superhighway, drop me a line and let me know. My address is craignteri@juno.com..

### IFAS Releases First 'Bug' Tutorial CD

### Earn CEUs at Home or Workplace, Increase Professional Skills

Extension entomologists at the University of Florida are releasing a series of computer-verified training tutorials to support industry.

The first tutorial is "Turfgrass Insects #1," which covers several arthropod problems in turfgrass. The tutorial, which requires the Windows operating system, comes with the same self-installing program used by most commercial software. The tutorial creates a UF icon on your computer's screen and uses less than 4 MB of hard disk space.

A short two-page set of instructions tells how to install and start the tutorial. The tutorial itself consists of 50 questions, with on-screen access to text and full-color photographs that students or professionals use to answer the questions.

Questions 1 and 50 also include information on taking the tutorial, printing the results and submitting the State of Florida "Attendance Form," which is also included with the program, to obtain one (1) CEU on the Lawn & Ornamental category. A score of 90% is required to pass the test, but the tutorial can be taken an unlimited number of times to achieve this score.

Submitting the test results and "Attendance Form" for the CEU costs \$10 per person, but an unlimited number of

people can use one program to obtain CEUs. Once an individual uses this program to earn the CEU, he or she can't submit the same program again for CEUs in the future.

However, UF will release many more tutorials in the future to provide all the CEUs you need to recertify. The tutorials are available 24 hours a day, 365 days a year for training at your location.

An added feature of the tutorial is that answering the questions correctly provides individuals with additional information on the pest or damage that is not part of the test. Answering questions incorrectly not only reveals the answer you should have made, but often gives information that helps you to understand the subject better.

Turfgrass Insects #1 is available for \$25, plus \$2 shipping and handling. Sales to Florida addresses must include local and state sales tax. Send a check or money order payable to Extension Pest Control Advisory Committee, P.O. Box 110831, Gainesville, FL 32611.

Additional information on this new series of tutorials, as well as new titles, is available on the UF Buggy Software WWW site at http://www.ifas.ufl.edu/~ent1/software/fasulo.htm

Tom Fasulo Extension Entomologist University of Florida/IFAS



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# Wall-to-Wall is a Terr

# When it comes to spraying chemicals, the

BY JOEL D. JACKSON, CGCS

Anyone managing a golf course in today's world should have a pretty sound foundation in the rules, regulations, safety, application methods and products involved.

Don't be too surprised if you don't find the silver bullet to solve all your problems in the following pages. What you will find is the shift to more environmental awareness in terms of how pest problems are solved and chemicals applied.

The message is loud and clear. Less is better and wall to wall is mostly a term used only in carpet sales.

1 Describe changes made to your overall spraying program to maximize Intergrated Plant Management (IPM) priniciples and minimize the use of chemical products.

Due to the amount of time and repeat chemical applications necessary for effective goosegrass control, 90 percent of our goosegrass is hand-pulled using weed "poppers" or weed forks. For maximum efficiency we use the specified spray tips for the compound being applied, i.e. flat fan tips for fungicides; flood jet for insecticides.

Scott Whorrall

On both Bonnet Creek courses we have increased the use of our 15-gal. electric sprayers whenever possible. Using a spot treatment approach rather than a broad band spray boom application reduces the amount of chemicals used and puts the product only on the actual target.

Last year we used less than half the amount of Orthene from the previous year due to our fairway application of Chipco Choice for mole cricket control. The fairways are still free of mole cricket damage. This seems to be a great IPM tool due to the low amount of active ingredient per acre if you can afford it. We are looking at expanding the treatment into some of the rough areas this year.

Doug Higgins

I have been doing a lot of spot spraying lately with a 3-gallon pumpup sprayer. I am using 3 oz of Illoxan with some spreader sticker and dye to treat crabgrass and goosegrass. It takes about two weeks to kill the weed, so be patient.

I have heard you can use Sencor to do the same. You use 1 oz of Sencor in four gallons of water and spray only the center of the plant. It also takes one to two weeks to die.

We just bought a 14-gallon electric sprayer to make our spot spraying more efficient. We put it in the back of a golf cart and run the sprayer off the cart batteries. The pump only needs 12 volts so the cart doesn't run down.

Jim Goins

2 Describe chemical storage, housekeeping, record keeping procedures, saftey, mix and load site management procedures.

All our chemicals are stored in a raintight room which is part of the metal main maintenance building. It has sparkproof electric exhaust vents on the roof to mimimize fumes.

The concrete floor is sloped to a spill containment area that can be pumped out. All chemical containers are lableled and stored on metal shelves with dry powder materials above liquid materials. Large and heavy bags and barrels are stored on pallets.

Whenever chemicals are applied, records including date, location, product name, rate, total area treated, total amount of product used, method of application, and applicator's name.

Personal safety equipment requirements are followed per label instructions. Mixing and loading and wash down are done in multiple remote field locations in the roughs as much as possible since the turf is a great filter.

Doug Higgins

Discuss make, model, size, capacity of all spray equipment you use. Do you use a walking boom for the greens?

We use a Toro Multi-Pro 5500 with

# n for Carpet Salesmen!

# message is loud and clear: 'LESS IS BETTER'

a 300-gallon tank for all our boom applications and a Spray Hawk (walking boom) on our winter overseeding. We have a Lesco 100-gallon tank mounted on a utility vehicle for our aquatic maintenance. We also use a Lesco 15-gallon electric sprayer for spot treatments and a 1-gallon hand sprayer for even smaller jobs in tight areas.

Scott Whorrall

For about the first year, we used walking boom sprayers on the greens until the surfaces firmed up. We currently use a 150-gallon Hahn sprayer and a Raven controller.

When spraying greens we normally only use 75 gallons of water per tank to keep the weight down to minimize tire marks usually resulting at greater weights. Insecticides and fungicides are the only products used in this sprayer. For herbicides and other miscellaneous spraying we have a 200-gallon tank mounted on a Toro Workman also with a Raven controller.

Doug Higgins

4 Discuss the type of nozzles you use and how you manage drift control.

We use Driftguard Flat fan nozzles to apply systemic fungicides and herbicides, Delvan Raintips for less drift and we add Windcheck drift-control product as needed.

Scott Whorrall

Both of our boom sprayers are equipped with Delavan #15 cone nozzles. These deliver a nice coarse spray for "windy" conditions. With the Raven controllers, rates can be changed with the push of a button. This is especially good when weight, wind or water volume per acre is a concern.

Doug Higgins

5 Discuss some of the successful tank mixes you have used. Give the problem target and product, rates, and frequency and timing of applications.

We have been using a broad spectrum preventive program on our bentgrass overseeding that has given us excellent 21-day control at reduced product rates over longer periods. Our tank mix is Chipco 26019 at 2.0 oz/M or 2 gal/A plus Cleary's 3336 at 1.2 oz/M or 1.25 gal/A plus Daconil 2787 at 4 oz/M or 4 gal/A. (M = 1,000 sq.ft.. A = acre.)

We also rotate standard label applications of Alliette, Subdue, and Banol every 21 days for pythium control

Scott Whorrall

Tank mixes that have been successful for us include MSMA plus Lesco Threeway when we have enough broadleaf and grassy weeds present together. I've found that 2

pints of Basagran per acre plus 4 to 8 oz of Image per acre works well on purple nutsedge in Tifway 419. Two applications may be necessary. At those rates, keep it off of Tifdwarf.

We have had great success on mole cricket hot spots with Orthene at 3.5 pounds per acre plus M-Pede at 1 quart per acre.

Doug Higgins

6 Discuss your most successful methods for dealing with hydraulic fluid leaks on turf.

Sod!!

Scott Whorrall

We flush hydaulic fluid leak trails with a soap solution to move it out of the root zone to aid in recovery, but the damage is usually already done. The quickest most successful way to remedy large visible damaged areas is to re-sod.

Doug Higgins

### Acknowledgements

- Scott Whorrall, Golf Course Superintendent, Kensington County Club, Naples.
- Doug Higgins, Assistant Superintendent, Disney's Bonnet Creek Golf Club, Lake Buena Vista.
- Jim Goins, Golf Course Superintendent, Hollybrook G & TC, Coconut Creek.



Spray Program on a Public Course

### Blanket Application is a Thing of the Past

ince we are a public golf course, we have to be careful and selective when making a decision to spray any chemicals, especially on greens and tees.

Fortunately our early morning players are regulars who understand what we are doing. I think the biggest change over the years in spraying is spot treatment of an insect, weed or fungus.

The overall blanket application has hopefully become a habit of the past.

I have at least three employees who can spot a potential problem starting to occur and report it to me.

Bob Farrington, who has been here 21 years, knows the course as well or better that myself. Bob and I have our Commercial Use Pesticide licenses and do all the necessary spraying.

Bob Keeth, a retired superintendent, works part time mowing greens, fairways and green and tee banks. He is another set of experienced eyes to catch anything happening to those areas.

Steve Brown, another employee who has been here over 18 years, has also learned what to look for.

All of our spraying is done with an 85-gallon tank and John Bean R10 pump mounted on a Jacobsen T2000 truckster. Our unit is calibrated to cover 50,000 square feet. We use 8004VS flat fan nozzles on a 15-foot dry boom with shut-off valves on each side unit.

We feel this set up gives us adequate water for good coverage and not much drift problems at 35 pounds per square inch of pressure.

When we calibrate for our 2-acre coverage rate on fairways for Primo or other chemicals, we have enough water per acre to meet most label requirements so we don't have to recalibrate very often.

We keep some granular fungicides and insecticides on hand so if it is too wet for our spray rig we can spot treat as needed.



Joe Ondo applies mole cricket bait only where needed. File photo by Joel Jackson.

Our chemical storage area is in a corner of our maintenance building in a separate room. The room has a cement floor, block walls and steel shelving for all our products.

We have been using a pesticide application log printed by FMC the past few years so all we have to do is fill in the blanks after each application. We also keep a separate daily diary of all work performed for our records.

Mix, load and wash-down is done on a cement pad next to our shop and all rinsate is sprayed back on the course on labeled target areas in fairways or roughs. Some of the tank mixes that have been successful for us are Basagran at 1 ounce per 1,000 sq. ft. along with 2 pints of MSMA per acre for sedge and crabgrass. Sometimes we don't have to come back with a follow-up treatment, but if we do there's usually not that much to retreat.

When we had a larger weed problem, a mixture of 2 ounces of Sencor plus 2 1/2 pints of MSMA and 1 pint of 2,4,D with a spreader-sticker was very successful.

The last few years, we have been using one wall-to-wall application of Barricade pre-emergent herbicide on a fertilizer carrier in the fall. We follow up as needed by spot treating post-emergent weeds as needed. This has worked very well for us with good results.

I found I was having more transition problems in the spring when we used a pre-emergent while the turf was trying to recover from winter traffic, so we eliminated that application.

When a granular fertilizer is about to run its course on greens and tees, we will use 4 ounces/1,000 sq.ft. of Ferromec and 2 ounces/1,000 sq.ft. of iron to keep the turf going until the next granular application starts to work.

Serious hydraulic leaks are few and far between since we have used the red dye in all our equipment. If we do get a severe leak on the greens, we use Aabsorb oil which works fairly well or we just go ahead and replace the damaged strip with sod from our nursery.

Some new products for hydraulic leaks at the GCSAA Trade Show looked promising. I asked them to send me more information.

New chemicals and products are constantly changing our maintenance practices so call around and ask what is working best for other superintendents and give them a try.

> Joe Ondo, CGCS Winter Pines GC



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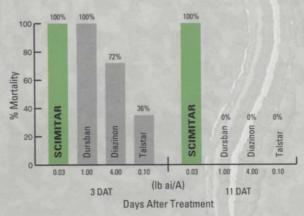
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### Residual Control of Fall Armyworm on Common Bermudagrass



Source: J. Reinart, Texas A&M University, Dallas, TX, 1996.



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### Planning, Prevention and Spot Treatments Are Key to IPM

BY BRIAN LENTZ, GCS DeBary Golf and Country Club

Our spraying program is most likely the same as most clubs. We have a limited budget so we have to use our pesticides wisely.

We start in November with the preparation of the budget. Without allocating the proper funding, it's hard to implement an IPM program.

We start with known expenses: Ronstar application for the roughs in March; limited Chipco Choice applications in May; Dursban bait application in early August and pre-emergent control for the overseeding in October. We try to assess the rest of the products we will need from last year's application records.

Our IPM program changes drastically from year to year, depending on how successful our efforts were the previous year. If we had good results from the Ronstar application in the roughs last year, we may only spot treat the roughs this year. The Chipco Choice worked so well last year in the fairways that this year we're treating the roughs instead.

These days we rarely put out a preventive fungicide treatment. The greens are scouted daily and we train employees to spot problems before they get out of hand.

When infestations are detected, other areas throughout the course are checked to see if we can treat just the infected greens or tees or if we should treat all 18.

The easiest program to implement was for sod webworms.

We have several greens that are checked regularly; we know that if these greens become a host, the rest are sure to follow. We try our hardest to limit pesticide applications as much as possible. With the owner's support of our programs, it's easier to endure some damage every now and then.

Spot-spraying is a vital part of our program. My assistant and I both have three sprayers mounted on our carts: one 15-gallon electric, one 2-gallon pump-up and

a 1-quart handheld sprayer.

We use the 15-gallon sprayers according to the season. In the spring we may have it loaded with Trimec to treat the hard-to-pull broadleaf weeds.

In the summer we may use a different mix each week: Roundup for the large landscape beds; MSMA for some crabgrass that made it past the Ronstar application; or some insecticide to treat a bunker face that has a few worms.

The 2-gallon sprayer is used for mole cricket control on the greens, using a mixture of 8 oz of Down-n-Thru and several drops of Oftanol to the 2 gallons of water. The mix is then injected into each burrow. We generally get 90 percent control and can keep the cricket damage to a minimum with both of us checking the greens weekly.

The 1-quart sprayer filled with 1 tablespoon of Sencor and dye as needed is our biggest asset. The goosegrass barely stands a chance with this mixture and one jug of Sencor has lasted four years.

We treat each plant with a small squirt and recheck the treated areas weekly for plants we may have missed during our daily routine. The dye helps to prevent treating the same plants twice and indicates which ones we may have missed the first time around.

For our large-scale broadcast applications we have a 120-gallon Broyhill sprayer mounted on a three-wheeled Cushman with a dry boom. We switch among three different nozzles depending on the application.

The Twinjet 8005 nozzles work great for contact fungicides and herbicides. The standard 8005 and 8006 flat fan nozzles fill our remaining requirements depending on the gallons per acre and the wind conditions.

The sprayer is calibrated before each use and fully rinsed after all applications. The rinsate is sprayed on the back of the driving range or in nearby landscape beds according to labeled uses.

Our chemical room is limited in size, so we try not to keep too much product. All shelving is steel and all dry formulations are stored above the liquids. There's 4-inch lip built into the entrance of the room to prevent any spillage from escaping; a ventilation fan runs continuously.

Only three persons have access to our chemical storage area: the superintendent, assistant superintendent and the spray tech. The room is equipped with a self-locking door preventing it from accidentally being left open. All safety equipment is stored in the maintenance shop away from the chemical room.

Our spray records are kept in a 1-inch, 3-ring binder that is clearly marked for the current year. A new folder is made for each year and is colored differently to distinguish the year easily.

We keep the old folders in my office next to the MSDS file, which is a 5-inch thick, 3-ring binder.

We also keep a copy of C&P 's *Turf and Ornamentals* handy in case we're missing any MSDS's. DTN now has MSDS's available on their system.

The DTN weather system service is a very important part of our program. It's nice to be able to glance at the radar to see if it's worth making an application. There's little point in spraying if it's going to rain in the near future.

We've been fighting nutsedge on our greens for several years by mainly hand spraying with Manage. The amount of time it took to monitor and hand spray each green became overwhelming. We decided to boom spray all 18 greens with the Manage last summer and the results have been outstanding. We may need one or two more applications to eradicate the weeds. We have seen no adverse effects on the bermudagrass.

Another outstanding product we incorporate into our spray program each year is Award Fire Ant Bait. We make two wall-to-wall applications, one in the spring and another in late summer. We have yet to have a problem with fire ants and rarely need to spot-treat mounds with powders or drenches.

Planning is a key to any IPM program, whether it's for budgeting purposes or scouting for problems. After working at DeBary for four years, it's easier to anticipate the seasonal pest problems and where those problems are going to occur. Longevity at a club helps to build a solid program and ensure its success. It's hard to plan for future problems if there is no history to build from.

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Super Tip

## Taking An Extra Step Can Save You Time!

### Blowing Off Clippings Before Washing Saves Water, Wash Time

DARREN J. DAVIS, GCS Olde Florida Golf Club

There seems to be a growing trend among golf course managers in Southwest Florida. They are building and maintaining organized state-of-the art turf maintenance facilities.

This affords further proof that the "old barn" is a dying object in today's

Only an OSHA-

approved nozzle

should be used on

the hose and, when

using the system, all

the operators should

wear safety glasses.

more advanced world of golf course management.

When these new facilities are being constructed, another trend is also surfacing, that is the trend of golf course superintendents becoming even more exceptional stewards of the environment. One area that superintendents are becoming more competent in this regard is water conservation.

Matt Taylor is the golf course superin-

tendent at the new Tom Fazio-designed Cypress Golf Course in northeast Naples. The Cypress Course is one of two 18-hole tracks that together will be known as Bonita Bay East.

Matt is also the proud manager of the newest modern turf maintenance facility in the Naples area that was built to house the maintenance operations for his two golf courses.

One of the features Matt has installed at his facility is a blow-off station at the entrance to his equipment wash-down area. Matt's intention of the blow-off station is to have his equipment operators use the compressed air to blow turfgrass clippings from the equipment prior to washing the machine with water.

Matt explained, "Not only do we conserve water but we also save valuable time. The clippings are certainly much easier and quicker to remove from the machine when the are dry."

When asked if his employees have expressed any objections to the added step Matt responded, "Absolutely not. In fact they enjoy using the compressed air, they are able to perform the same necessary job as before and they even stay drier.

"Even though the blow-off station

adds another step to the cleaning process, it decreases the labor needed to keep the equipment-washdown area clean."

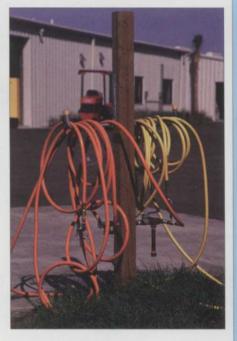
Matt was referring to the fact that since the clippings are blown on a pad prior to entering the wash down area, there is a decreased need to shovel away mounds of wet, stinky clippings from the wash-down area.

According to Matt, "That certainly helps improve employee morale!"

Blow-off stations can be fabricated in a variety of shapes and styles. They can be as simple as a bundle of hose plumbed into a compressed air source, or they can be made a little more sophisticated by utilizing retractable hose reels.

Regardless of the size or shape of the blow-off station, there are a few safety features that all of the systems should definitely incorporate.

Only an OSHA-approved nozzle should be used on the hose and, when using the system, all the operators should wear safety glasses. It would also be a good idea to post a warning sign declaring this requirement.



Basic blow off station at the new Tom Fazio designed Cypress Golf Course in Naples. Photo by Darren Davis.



A slightly more advanced blow-off station utilizing a retractable hose reel, a warning sign, and a safety glasses holder. The shovel mounted behind the support pole is used to clean up any build up of clippings in the area. Photo by Darren Davis.







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# UF Appoints John Cisar To Coordinate Turf Program

he University of Florida, IFAS, announced the appointment of Dr. John L. Cisar as the new coordinator of the turfgrass program.

The official announcement was made by Dr. David Buchanan, director of UF's Fort Lauderdale Research and Education Center on March 12 at the South Florida Turfgrass Exposition at the FLREC.

The duties of the coordinator are to lead the university's research and extension program in turf and act as a university liaison to the turfgrass industry. The position has been vacant since the retirement of Dr. Ed Freeman in 1996.

Dr. Cisar has spent his entire professional career at the University of Florida, and is currently an associate professor of turfgrass management and water at the University's FLREC.

Dr. Cisar received his B.A. from Rutgers University in his home state, New Jersey. He received his M. S. from Cornell University and Ph.D. from the University of Rhode Island.

Since his appointment to the University of Florida in December 1986, Dr. Cisar has conducted research and extension education programs which emphasize the development of turfgrass management systems that conserve Florida's water and natural resources and that protect Florida's water quality.

Dr Cisar's current and recent cooperative projects include studies on the fate of agri-chemicals applied to turf including dislodgeable residues, the influence of Florida lawns on nutrient mobility, the effect of effluent irrigation on nutrient leaching to groundwater, compost utilization in turf, irrigation efficiency, turf nutrition, soil-water repellency, diseases of warm- and cool-season turf, soil amendments, and evaluation of new turf varieties



Dr. John L. Cisar, associate professor of turf management and water at the University of Florida's Research and Education Center at Fort Lauderdale, has been named to coordinate the university's growing turf program.

including the new National Turfgrass Evaluation Program bermudagrass putting green variety trial to be conducted at the Jupiter Island Club.

His work is being funded by national and statewide organizations including the United States Golf Association, FTGA, Florida Department of Environmental Protection, and the Sarasota Bay National Estuary Program. He is the author or coauthor of over 150 scientific and popular manuscripts.

Dr. Cisar is a director of the International Turfgrass Society, the editor of the International Turfgrass Society Newsletter, technical editor of the Florida Turf Digest, contributing editor of Turf News (magazine of the Turfgrass Producers International), and an advisory member of the FTGA.

Dr. Cisar and his wife, Terry — a pharmacy manager for Walgreen's — reside in Plantation in Broward County with their 15-month-old son Joey. Plantation is central to the large and varied turfgrass industry of subtropical south Florida.

### Architect, Superintendent To Lead Florida Golf Alliance

With an architect as president and a superintendent as vice president, the Florida Golf Alliance is a reality.

Proceeding thoughtfully to avoid the pitfalls and failures of past attempts at unifying all the golf interests and associations in the state, the FGA is building a team based on the strength of unity.

The Alliance's stated mission is to promote and protect the industry as a major contributor to the state's economy, environment and quality of life.

Seven major associations have taken the lead so far in helping to organize the alliance: PGA Tour, LPGA Tour, Tommy Armour Golf Tour, Mercury Titleholders Championship, Florida Golf Course Superintendents Association, Florida Turfgrass Association and the Florida Chapter of the Club Managers Association.

The FGA Board is actively seeking participation and membership by all organized groups and associations that have a stake in the future of the game



Florida Golf Alliance President Ron Garl and Vice President Roy Bates are working to unite all Florida golf interests under one banner to address issues that may affect the game or the industry. Photo by Joel Jackson.

and the business of golf and that have the desire to work together for the common good.

One of the first goals of the Alliance will be to document the total economic impact of golf on the state of Florida.

Building on the Turf Economic Survey done by the FTGA, the FGA will expand the findings to include all phases of the golf industry to include golf operations, maintenance, retail sales, tourism, real estate development, recreation, jobs and food beverage to name a few areas.

Current board members include President Ron Garl, golf course architect; Vice President Roy Bates, CGCS, Imperial Lakes CC and FTGA; Secretary Ann Palmer, Mercury Titleholders Championship; Treasurer Jack Brennan, Paladin Golf Marketing.

Directors are Richard Bowers, PGA Tour; Terry McCracken, LPGA Tour; Terry Fine, Tommy Armour Golf Tour; Joe Ondo, Florida Golf Course Superintendents Association and Mike Fiddelke, Club Managers Association.

Joel Jackson, Director of Communications for the FGCSA has also been attending the meetings since his appointment in January.

### New Product Display, Casino Nite Planned for 1998 FTGA Show

The 1998 Conference & Show plans are off to a great start. There is going to be so much fun and excitement you won't want to miss a thing. Some of the new events for this year:

- · Casino Night w/ Entertainment
- · New Product Showcase
- · Key Note Speaker
- · And much more!

This year there will be special events for members only. If you are not already a member now is the time to sign up with the Florida TurfGrass Association and become part of the action, not only at Conference and Show but all year long.

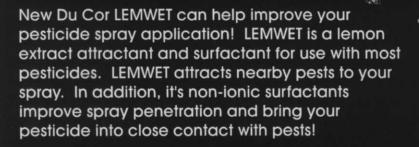
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wide variety of helpful material to assist you in you work place, and the bimonthly *Turf Digest* to keep you up to date on turf industry-related research, seminars, and upcoming events.

Your membership dollars also help the turf industry by keeping a full-time lobbyist interacting with governmental agencies and representing the our interest in the turf industry, and all of the FTGA's research dollars stay in Florida to solve Florida's problems.

For more information about the FTGA Conference & Show, membership, or turf conferences call the FTGA staff at 800/882-6721, e-mail FTGA@aol.com or visit our web site at http://www.ftga.org.

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### FNGA's Florida Plants of the Year (Part 2)

Editor's Note: In the last issue we told you about the program started by the Florida Nurserymen and Growers Association that will identify superior plant material that performs well but is often underutilized. If you are looking for proven plant material to provide color and diversity on your course, you may want to give these 1998 Florida Plants of the Year a closer look.

The program's selection committee includes horticulturists, nurserymen, educators, architects and other professional members of the horticulture industry from central, north and south Florida. Here are the rest of the selections for 1998.

### **Trees**

### ACOMA CRAPE MYRTLE

Lagerstroemia indica (crape myrtle) is commonly referred to as the "Lilac of the South." Over 75 cultivars are currently being evaluated in north



Florida. Of these, the Florida Plants of the Year selection committee has chosen three. One of the winners selected was 'Acoma.' This plant will reach a mature size of about 12' x 12'.

An outstanding characteristic of the white flowering 'Acoma' is its very distinctive horizontal habit of growth. The tree usually begins blooming around late June and continues for about three months.

The bark color is in attractive shades of cream and beige. As fall approaches, look for striking foliage color that gives way to fine branching structure. This interesting structure lends itself to a nice display with night lighting in the winter. Acoma is a National Arboretum hybrid and has excellent powdery mildew resistance.

Crape myrtles are adaptable to climatic conditions throughout Florida. Planting

in full sun will result in the best flower production. They are tolerant of a wide range of soil types, but grow poorly in wet soils.

Common Name: Acoma crape myrtle Horticultural Name: Lagerstroemia indica 'Acoma'

Hardiness: Zone 7

Mature Height x Spread: 12' x 12'

Classification: Small tree

**Characteristics:** Distinctive horizontal growth habit with white pendulous flowers

### TONTO CRAPE MYRTLE

Lagerstroemia indica (crape myrtle) was introduced to the southern United States over 150 years ago from Asia. Since that time, many new hybrids have been developed. Among these introductions



was an indica x fauriei named 'Tonto.'

'Tonto' is an upright, rounded plant reaching about 15' in height. It produces the best red flowers of any of the disease-resistant

hybrids. The red panicle may be up to eight inches in diameter. Bloom usually begins in July and extends through September. Its bright maroon colored fall leaves drop in winter, revealing a living sculpture. This USDA release exhibits good powdery mildew resistance.

With very few pest problems and low fertility requirements, crape myrtles make an excellent choice for the landscape. They also require very little pruning. Prune to develop shape or remove suckers, but avoid hard pruning on an annual or regular basis. Tip pruning to remove old flowers will promote repeat blooming.

Crape myrtles tolerate a wide range of soil types, but perform poorly in wet soils. Best flowering and disease resistance is achieved by planting them in full sun.

Common Name: Tonto crape myrtle Horticultural Name: Lagerstroemia indica 'Tonto' Hardiness: Zone 7

Mature Height x Spread: 15' x 15'

Characteristics: Upright, rounded plant reaching 15' in height

### SIOUX CRAPE MYRTLE

Crape myrtle derives its common name from its crepe-like crinkled petals and the resemblance of its leaves to the true myrtle, *Myrtus communis*.



Among over 75
cultivars being
tested in Florida,
the National
Arboretum hybrid
'Sioux' was
selected because
of several
outstanding
characteristics.
This tight, vase-

shaped cultivar reaches about 20' in height and develops blooms that are a beautiful shade of medium pink. The bloom usually lasts from July through September. Because of its almost columnar habit, the Sioux is an excellent choice for narrow spaces. A 9 year-old Sioux crape myrtle at the University of Florida's Research and Education Center in Monticello is 20' tall and only 11' wide. Fall foliage color is an intense red. The plant shows an excellent resistance to powdery mildew.

Crape myrtles are seen throughout Florida today and offer a tremendous display in the summer. When looking for that medium-size tree to highlight the landscape, consider 'Sioux.'

Crape myrtles are very tolerant of drought and a wide range of soil types. They perform poorly in wet soil conditions.

Common Name: Sioux crape myrtle Horticultural Name: Lagerstroemia indica 'Sioux'

Hardiness: Zone 7 Mature Height: 20'

Landscape use: Narrow spaces, landscape highlight

Characteristics: Tight, vase-shaped cultivar that reaches 20' in height and develops medium pink blooms

Plant descriptions and photos provided by the Florida Nurserymen and Growers Association, 1533 Park center Dr., Orlando, FL 32835, 407-295-7994, Fax 407-295-1619, e-mail: fnga@aol.com Bureaucrats On The Loose Again.

## Pesticide Uses May be Lost Under FQPA

The 1996 Food Quality Protection Act (FIFRA Amendments) substantially changes the way pesticides are evaluated for safety.

To assess the risk of pesticides, EPA must now address the total exposures from residues in food as well as drinking water and residential sources. In addition, the accumulated exposure from chemicals with similar toxicity mechanisms will be evaluated.

Using the new assessment criteria, EPA has begun to decide which pesticides and pesticide uses will remain available and which registrations will be canceled.

What is going wrong?

Pesticide manufacturers say the requirements of the law are strict but achievable, provided EPA:

- allows development of the best scientific methodology to meet the new safety standards and revised objectives for protecting human health and the environment.
- bases decisions on actual updated scientific data and pesticide use; and
- establishes and communicates open, uniform and scientifically practical policies to guide consistent implementation of the new law.

FOPA allows EPA to use a process called "data-call-in" to obtain the scientific data necessary to conduct these new risk assessment evaluations.

However, early indications are that EPA is not planning to use the "data-callin" provisions of the law, and is instead using a method called "default assumptions." These "default assumptions" about exposure and usage are in many cases overly conservative, inaccurate and unreliable.

Using "default assumptions" will likely result in the unnecessary loss of pest control products, especially in nonfood markets such as turfgrass.

How will golf course superintendents be affected?

As a result of EPA's implementation of FQPA, golf course superintendents may lose access to valuable pesticides, thereby reducing maintenance options. The practice of Integrated Pest Management will be compromised and maintenance costs inevitably will increase.



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#### Your Action Needed!

What can golf course superintendents do to help?

To maintain access to needed pesticides, user groups are working with industry to ensure that EPA implements the new law fairly and objectively by using the best scientific methodology and data, and the most accurate information about pesticide use. EPA officials have not been responsive to pleas from industry, but they will listen to Congress.

Call or write your member of Congress. Ask them to urge EPA to:

- preserve as many valuable pest management protection tools as possible;
- use "data-call-ins" to obtain the information necessary to accurately evaluate the safety of pesticide products:
- base decisions on actual pesticide use; and
- establish and communicate uniform policies for consistent FQPA implementation.

Editor's Note: To meet their agenda, latest reports have EPA canceling all tolerances for organophosphates! Your local chapter external vice president has been given a Congressional Contact Kit to help you join in the grassroots campaign. Dow AgroSciences reps are also assisting chapters with the letterwriting campaign. The GCSAA and a Florida coalition of pesticide user groups are working with a national coalition of manufacturers and other users to alert Congress to the impracticalities of EPA's approach. Get involved!

Turf Talk

## What Do Golfers Really Want?

BY KEVIN DOWNING, CGCS

Willoughby Golf Club and FSGA Board Member

What do golfers really want when they play? Birdies, pars, a quality tee shot, a trouble shot that skips nicely up the approach onto the green?

What about a good, consistent putting surface? Whether you are a middle handicapper or a scratch player, golfers are affected by the condition of the playing surface more than any other sport.

The individuals responsible for conditioning the turf at the golf courses throughout our state are commonly called golf course superintendents or course managers. The decisions these turf managers make on a daily basis can have a tremendous impact on your enjoyment of golf.

As a matter of fact, the selections of turfgrass varieties for overseeding or bermuda foundation planting stock vary so much that these varieties could affect green speed in excess of two feet. With this type of diversity, it becomes apparent that golf course superintendents need to be aware of golfers' needs and golfers need to realize that grass solutions on golf courses are not always simple decisions.

In the early 1950s, bermudagrass putting surfaces were very coarse and probably not much better than a good tee of the 1990s. Varieties came along in 1956

that improved the putting quality quite a bit and then great strides were made in 1965 with the introduction of a variety called Tifdwarf.

Golfers who have played in Florida for any length of time are probably familiar with Tifdwarf, but most of them are probably unaware of its origin. No, it did not come from the shelves of Home Depot, and it is not available in a burlap bag at your local feed store.

Actually, Tifdwarfis a "mutated clone" that came from a Tifgreen putting surface at the Florence Country Club in South Carolina.

The original Tifgreens were developed by an artificial crossbreeding of two types of bermudagrass, creating a sterile triploid hybrid. That's enough botany for now, but the key item to remember is that the grasses for Florida golf courses come from vegetative parts rather than seed. The pure act of growing and planting vegetative grasses can cause a multitude of problems for putting surface consistency.

A number of years ago, you either chose Tifdwarf or Tifgreen and went from there, but now there are more flavors in the candy story and we surely hope they all taste good.

A little-known fact is that of the six or seven vendors who sold Tifdwarf throughout Florida in the last 25 years, each strain was slightly different and they adapted to site situations with unique

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Red Ball Diamond Clay characteristics. Some of these dwarfs would be more acceptable to overseeding while others might denser and less susceptible to algae formation during inclement weather patterns.

Obviously, all dwarfs were not created equal and the problem was intensified when the state of Florida dropped the Turfgrass Certification Program in 1985 in the wake of a cost cutting campaign.

As players, we all want surfaces that look like a pool table with no blotches or imperfections. Unfortunately, sometimes bermuda greens can look like a bad hair day for Dennis Rodman of the Chicago Bulls. The imperfections of older Tifdwarf greens might not putt poorly, but boy they look ugly! No offense, Dennis.

The search for a better grass for southern greens has been brewing for some time, but only in the last few years have we begun to make some headway. Four new selections have been released recently which include Floradwarf, Champion, M.S. Supreme and, most recently, Tif-Eagle.

Some of these grasses have come from

Unfortunately, sometimes bermuda greens can look like a bad hair day for Dennis Rodman...

the private sector while a few have come through the more traditional channels of university releases.

Some of the concerns about the new "ultra-fine" bermudagrasses will be worked out when superintendents and researchers become more familiar with the growth habits of these new varieties.

Since the new bermudagrasses have not been thoroughly evaluated in replicated green trials, a number of questions still need to be answered regarding stress and pest tolerances over a wide range of locations.

The United States Golf Association, in cooperation with the National Turfgrass Evaluation Program, is sponsoring onsite testing at a variety of locations throughout the Southeast. These tests will be beneficial for accurately evaluating putting green grasses under a wide range of environmental conditions.

In cooperation with the Florida Golf Course Superintendents Association, the Florida State Golf Association will continue to monitor developments in this area and will be supportive through the Cal Korf Turfgrass Fund. Hopefully, as time progresses, golf turf in Florida will continue to get better which might make the game more enjoyable for all of us.

Reference: Foy, John. "The Hybrid Bermudagrass Scene," USGA. Green Section Record, Nov/Dec 1997.

Editor's Note: Kevin submitted this article for publication in the Florida State Golf Association newsletter. We thought we might print it here to let you know that we are trying to bridge that gap between superintendents and the golfing public. That is one of the goals that came out of the FGCSA Strategic Planning Session last November.

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Field Day attendees listen to Dr. J. Bryan Unruh speak about the newly sprigged USGA specification putting green.

## Just Where IS Milton, Anyway?

The Not-So-New Guy's Perspective on Building a Great Turf Program

BY J. BRYAN UNRUH, PH.D. University of Florida

y now, the news of the expansion of the University of Florida's Institute of Food and Agricultural Sciences turfgrass program in Milton is old. However, I frequently come across people who are not fully aware of what is going on in that "other" part of Florida.

The turfgrass program is part of a new off-campus teaching program located in Milton, a small suburb east of Pensacola. This program is the result of an idea that surfaced back in 1985 with Pensacola Junior College's Milton Campus Provost, Doug Worley, former state House of Representatives Speaker Bo Johnson, and PJC's natural resource department head, Logan Fink.

The idea involved bringing courses available only at UF to the Panhandle so that students could pursue a bachelor's degree without having to go to Gainesville. Students would obtain prerequisite courses at PJC and the University of West Florida in Pensacola would provide several elective courses.

The Legislature first considered the issue in 1988, approved funding in 1990, and the first classes were taught in 1992.

Today, five additions complement fac-

ulty already at UF's West Florida Research and Education Center north of Pensacola to offer degrees in turfgrass science, environmental horticulture, and natural resource conservation.

Besides the on-campus faculty, distance learning systems such as live satellite television, two-way interactive compressed video, and Internet-based correspondence courses are used to link students to faculty.

#### **Expanding the Mission**

In an era of tighter budgets and shrinking financial resources, UF justifies this type of program by expecting faculty to



develop research and/or extension programs in the Florida panhandle that will further the University's and IFAS' missions to "develop knowledge in agricultural, human, and natural resources and to make that knowledge accessible to sustain and enhance the quality of human life."

It is because of this expectation that the UF Turfgrass Field Laboratory at the WFREC was constructed. Located about 30 miles northeast of Pensacola, the Turfgrass Field Laboratory now has nine acres of turfgrass plots.

The initial phase of construction encompassed about four acres that consisted of two 14,000 square-foot putting greens, one built to USGA specifications and the other "push-up."

In addition to evaluating different bermudagrass cultivars, plans for these greens include overseeding studies, verticut/topdress frequency studies, and fertilizer source studies.

Large plots of centipedegrass, carpetgrass, Pensacola and Argentine bahiagrass, Tifway bermudagrass, FloraTeX<sup>™</sup> bermudagrass, and St. Augustinegrass have also been planted.

The second phase of construction which was completed this past fall also encompasses four acres. However, plot sizes are much larger and the area is designated for turfgrass weed science and pathology work.

In addition to the field plots, a 2,800 square-foot maintenance facility has been constructed which houses equipment storage, office space, and a laboratory teaching area.

Much of the nine acres already developed has research projects in place.

Cooperative efforts have been made with UF turfgrass breeders Drs. Al Dudeck, Russell Nagata, and Brian Scully. They are currently evaluating nearly 200 germplasm accessions of bermudagrass and St. Augustinegrass at this northwest Florida location.

In addition to the collaboration of faculty in Florida's university system, we have forged relationships with the University of Georgia, Texas A&M, and Auburn University.

Presently, we are evaluating new releases from Georgia for Drs. Wayne Hanna and Ronnie Duncan. These include TifBlair centipedegrass and Tif-Eagle (TW- 72) and Tift94 bermudagrasses and the Seashore Paspalums.

We are also evaluating four new zoysiagrasses from Dr. Milt Engelke's breeding program at Texas A&M for their efficacy in Florida. Two National Turfgrass Evaluation Program cultivar trials buffalograss and zoysiagrass — are also being conducted.

#### **Built on Relationships**

Amazingly, the growth and success of the Milton program have exceeded even the greatest hopes and expectations. In retrospect, the success of the Milton program can largely be attributed to great relationships forged with the Gulf Coast Chapter, GCSA, as well as many individual superintendents and industry representatives.

I vividly remember when shortly after arriving in Florida, I was in my new office unpacking boxes upon boxes of books and files when my secretary indicated that a Jeff Ball of Panama Country Club, Lynn Haven, was on the telephone.

After introductions, Jeff proceeded to lay out his vision for the turfgrass industry in Florida and he made the statement, "Blowyour horn because the cavalry (Gulf Coast turfgrass industry) is on its way."

Jeff has been instrumental in helping build this program, earning him the esteemed title, "wheel greaser."

Jeff's leadership and vision made him a natural choice to represent the University of Florida at the National Leadership Seminar in Washington, D.C. hosted by the National Association of State Universities and Land Grant Colleges. At this conference, Jeff participated in the development of strategies for future land use stewardship opportunities. Two other superintendents, Ron Wright, CGCS and Mark Richard, CGCS have both been active in helping to build a top-notch

In a similar situation, several weeks after my coming to Florida, the Board of Directors of the Gulf Coast Chapter, GCSA invited me to their meeting and asked how we could become partners in promoting the turfgrass industry.

The superintendents' organization has

been an invaluable avenue by which I have met many people. Furthermore, this contact has provided me the opportunity to see and hear first hand the research needs and desires of turfgrass managers working on the Gulf Coast.

In reciprocation, my office lends secretarial support and acts as an information clearing house. Centralizing the communication efforts has done great things in strengthening this multi-state superintendents' organization.



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Through these efforts the superintendents have completed the GCSAA affiliation process which further qualifies them, in cooperation with UF, to seek funding opportunities from the GCSAA Foundation.

#### **Gulf Coast Turfgrass Expo and Field Day**

Another cooperative effort between UF and the Gulf Coast superintendents is the Gulf Coast Turfgrass Expo and Field Day. The superintendents started this event a year before my arrival.

In its maiden year, the event was primarily a "sit-down" educational event that featured two university turfgrass specialists. In its second year, we expanded the focus of the event to include a tour of the turfgrass research plots at the new UF Turfgrass Field Laboratory at the WFREC.

Attendance was near 70 and people were able to hear Dr. Patricia Cobb, extension entomologist from Auburn University and Dr. Wayne Hanna, turfgrass breeder with the USDA.

After the educational session, attendees were able to see the site on which we were constructing the field laboratory. At that time, the buildings were not built yet and only a few turf plots had been established.

We also invited vendors to participate and several displayed their products and services.

Last year, the event was highly successful with more than 225 people attending. Again, the focus was changed and today, the Gulf Coast Turfgrass Expo & Field Day is a research plot tour at which attendees hear six or seven researchers discuss current field projects and learn how to apply these findings to their day-to-day maintenance regimes.

#### **Industry Support is Vital**

Good relationships have also been forged with Jerry Pate Turf Supply, The Toro Company, Stovall Turf and Industrial, Rain Bird Golf Irrigation, Cushman, Tieco Gulf Coast, and Jacobsen.

Chris Kurpuis, Jerry Pate Turf Supply, has led the way in providing literally thousands of dollars worth of Toro equipment as well as working with Toro representatives in procuring irrigation equipment for the initial four-acre development.

Similarly, Marty Morris of Stovall Turf and Industrial worked with Leslie Seward of Rain Bird Golf Irrigation to get the irrigation system donated for the second phase of development. Marty also called in a favor from Eric Merkt, ProRain Irrigation Company, to help install the system.

Numerous other vendors have also been extremely gracious in providing the equipment, materials, and supplies needed to maintain this turfgrass field laboratory. There is no doubt that this project would not be where it is today without the tireless efforts of these many people.

#### **Building a Statewide Turfgrass Program**

One of the greatest needs in a state as large and diverse as Florida, is a concerted statewide turfgrass teaching, research, and extension program. I believe that one of our greatest assets is a statewide turf program with four turfgrass research facilities spread across the state.

Admittedly, collaboration among locations has been lacking in the past. However, we are seeing great strides being made in forging new partnerships among our faculty at UF.

Our turfgrass breeders in Belle Glade, Drs. Russell Nagata and Brian Scully are great examples of researchers who have taken their program statewide. To better evaluate their new grasses, Russell and Brian have placed their plant materials at several locations throughout the state.

This statewide testing allows them to obtain information concerning differential biotic and abiotic stresses that are found across a state as large as Florida.

Our turfgrass teaching program is another area in which faculty members are collaborating. Unknown to many, Dr. Grady Miller (Gainesville) has very successfully led the turfgrass teaching faculty to develop and implement a Turfgrass Interdisciplinary Science degree program.

Essentially, students entering the turfgrass academic program will now graduate with a degree in Turfgrass Science, not an Environmental Horticulture degree with a turfgrass option.

This new degree program greatly enhances our ability to tailor the curriculum to meet the changing needs of the turfgrass manager. Furthermore, this mechanism will allow us to better market the degree program to potential students.

Another example of statewide collaboration can be seen in the new extension design team, FL-116, Turfgrasses in Florida.

This team, comprising UF turfgrass specialists and county Extension faculty, has developed specific objectives concerning coordination of the UF turfgrass Extension, Research, and Teaching program to provide the right information to the right people.

The goals that have been set are enthusiastic, yet they represent the broad base of information needed by all segments of the Florida turfgrass industry. Great effort was taken to assure that all aspects of turfgrass management were taken into consideration.

If you are curious, the design team goals and objectives can be seen on the world wide web (http://www.ifas.ufl.edu/~smpweb/fl116.htm).

#### A Challenging Future

These are but a few examples of the many positive steps being taken at UF to build a strong statewide turfgrass program. UF has experienced tremendous success and support at each of the four locations.

However, it is time that we press on and continue moving forward to broaden our collaborative efforts further, both among faculty members and with the supporting industry. As they say, "United we stand, divided we fall!"

In time, many more challenging, yet exciting things will happen.

Let us (UF Faculty and Industry, alike!) not allow the things we *cannot* do, keep us from doing the things we *can* do. It takes a while to get the train moving, but once it is, it is even harder to stop!

Florida has the potential to have the greatest turfgrass Extension, Research, and Teaching program in the world. Bar none! Let's build it!

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#### BY SHELLY FOY

USGA Green Section, Florida Region

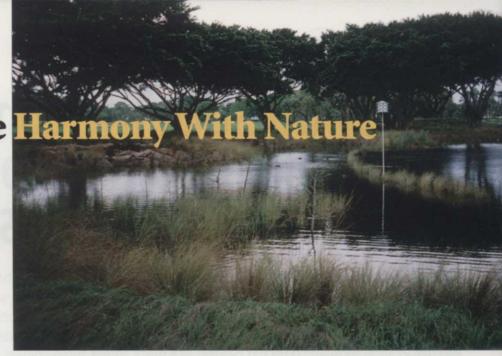
ver the years, I have mailed many things to Jeff Klontz, superintendent at the Country Club of Florida. However, I never paid much attention to the Village of Golf, Florida address until conducting some research for this article.

Yes, there actually is a town called the Village of Golf. It was incorporated by a special act of the Florida Legislature in 1957. There were no minimum number of residents required for zoning laws in 1957, which is a good thing because the only residents at that time were the cows!\*

Now, the Village of Golf is a self-sustaining community of 360 acres that has its own government. The first mayor, Carleton Blunt, was elected in 1957 and retired 30 years later. Blunt proved to be a visionary in many ways, but especially when he proposed development of a water and sewer facility. This facility now serves Delray Dunes, the Country Club of Florida, and Quail Ridge.

The Country Club of Florida golf course opened in 1957, and currently has approximately 300 members. The architect was Bruce Harris of Chicago. In 1986, an extensive course renovation project was conducted. In addition to addressing a variety of agronomic and drainage issues, Arthur Hills modified the course design. He also preserved the layout while improving the character and playability of the course.

The Country Club of Florida first joined the Audubon Cooperative Sanctuary Program for Golf Courses in 1991. Its Audubon Committee was formed in 1996. It became certified in Environmental Planning in April 1997, and in December 1997 became certified in Out-



The same wetland area after construction. The improved wetland is now home to 5,000 cordgrass plants, purple martins, mallard ducks, coots, gallinules and American widgeons. Photo by Jeff Klontz.

reach & Education and Wildlife & Habitat Management. As you can see, since joining the Audubon program, the Country Club of Florida has been very busy.

I have spent a lot of time on golf courses in the past few years talking about the Audubon Program. To me, the Country Club of Florida stands out in several areas:

- They have a strong Audubon Committee that is dedicated to providing the time and finding the money for enhancement projects.
- They have a superintendent that is committed to doing the right thing.
- They have a membership that strongly supports the projects they are working on with funding as well as enthusiasm.

#### **Membership Support**

There are many groups that support enhancement projects at the Country Club of Florida: the Audubon Committee, Beautification Committee, Village of Golf, Green Committee, and Homeowners Association.

The Audubon Committee's eightmember team includes Jeff Klontz, superintendent, Buzz Jaskela, Landscape Designer, and six Country Club of Florida members.

Dr. Bob Raborn, chairman of the Audubon Committee, says "the amount

of time you can realistically spend on enhancement projects depends on your vision and your commitment. We are fortunate to have the financial support, team and time." He also stated that "consistency is very important for longrange planning."

Another committee that contributes significantly to the Audubon Program is the Beautification Committee. Bill Fay is the enthusiastic chairman whose visions and persuasive letters have raised between \$25,000 and \$30,000 yearly to support the Long Range Landscape plan and now the Audubon projects as well.

For more than 10 years, this committee has provided funds to the golf course for enhancement projects. Klontz recently completed a hole-by-hole list of contributions from this committee to emphasize the impact of this group's support.

"It seems as though we sometimes overlook just how important beautification funding is to the Country Club of Florida. We truly appreciate their support," he said.

The Village of Golf itself also contributes funding for enhancement and capital improvement projects, and the membership supports these efforts as well.

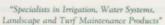
Jeff's outreach and education goals for the Country Club of Florida are to



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increase awareness and the importance of

- biological pest and turf management methods and to show that the golf course uses less toxic chemicals
- water conservation and effluent water usage
- the value of native plant material in landscaping
- · benefits of attracting wildlife
- · the Wildlife Corridor
- · water quality management

The Country Club of Florida has a community and leadership committed to working together on programs to benefit the Village of Golf community.

#### Wildlife Corridor

One of the most visible enhancement projects at the Country Club of Florida, and one I am sure they are most proud of, is the Wildlife Corridor. Consisting of four acres, this area does not affect play of the course, but certainly makes the golf course appealing for wildlife.

The intent of the corridor is to connect two large bodies of water that are out of play, and give wildlife room to migrate from one water source to the other. Within this corridor is a wetland, an island with purple martin houses and duck boxes, brush piles, bird feeders, and hundreds of native plants that provide food sources for wildlife.

There is a mulched path throughout the corridor for golfers/members interested in enjoying the natural area that has been created. Some of the plants used in this corridor include beauty berry, wild coffee, firebush, porterweed, coco plum, and necklace pod.

Dr. Raborn says, "For an established golf course, it is a little harder to plan wildlife enhancement projects than perhaps a new development. In some ways, we are playing catch up".

They have certainly made a valiant effort with this corridor.

The Wildlife Corridor can be seen from holes No. 6 through No. 10. To get the project started, Buzz Jaskela was asked to draw a five-year plan, including a list of plant material.

This plan was shared with the Country Club of Florida membership. The



Country Club of Florida wetland area before renovation in 1997. Photo by Jeff Klontz.

Audubon Committee made presentations to the Beautification Committee, the Green Committee, as well as to the Village Council and Homeowners Association. Once the plans were approved, the project was under way.

A 1995 report from Arthur Hills suggested updates and improvements to the 9th tee by altering the elevation of the ladies and seniors tees by 3.5 feet. This would improve the view of the dogleg bunkers and the entire hole.

In 1997, in a joint project among the Audubon Committee, the Beautification Committee, and capital improvement funds, the 9th tee was indeed raised 3.5 feet. Sixteen thousand cubic yards of soil was removed from the proposed wetland preserve area and used to elevate the tee.

The 9th Gold Tee and part of the cart path was also relocated. In addition, 5000 cordgrass plants, 1000 spike rush plants, and 250 native shade growing plants were installed in the 4-acre wetland preserve.

This Wildlife Corridor area reduces mowing/labor costs, and is not irrigated. So in addition to improving the playability of the golf course, this project completed the connection of the wetland area to an already existing oak grove corridor, which increased the habitat area by 200 percent, and is saving money on manpower and irrigation requirements.

Wildlife now has the ability to travel from a native grassy area to a wooded oak area with brush piles providing safe cover.

Jeff felt many of the available food sources had been removed over the years with the intensive grooming practices. That is definitely not the case anymore, as all plants are now chosen for their value to wildlife.

Dr. Raborn reports that they are already seeing more birds than ever, including some species that were never there before.

In addition to the Wildlife Corridor, the Country Club of Florida has a very expansive nestbox program. They have reported having good luck with purple martin boxes for the past five years. To date, they have over 40 purple martin boxes around the golf course. Bill Lugar, a member of the Audubon Committee, monitors the purple martin houses. Due to predator problems last year, they are in the process of installing crow guards on the purple martin boxes.

This year, they have added nestboxes for red-bellied woodpeckers, bluebirds, yellow crested flycatchers, carolina wrens, downywoodpeckers, bats and screech owls.

They have at least two nestboxes per hole, (not including the purple martin houses) and all boxes are constantly monitored for nesting activity. There are also at least five bird feeders on the course, and they use approximately 50 pounds of bird feed each month.

Gladys Walsh, Jeff's office assistant has a schedule of filling the feeders three days a week, year round, and she also keeps a calendar on wildlife activity on the golf course.

Using native plants has not only paid off in more wildlife being attracted to the course, but in actual dollar savings as well. Each year, the Country Club of Florida was spending \$1,500 for annuals to be planted near the tee boxes. In 1992, they replaced these annuals with native plants that require little attention other than occasional mulch, and they have saved more than \$10,000 to date. This does not include the savings in irrigation reductions.

Currently, over 75 percent of landscape plants at the Country Club of Florida are native. The Village of Golf even has an ordinance that prohibits removal of native trees with more than a 2-inch diameter, or saw palmettos, without a permit.

Shoreline vegetation has also been a priority at the Country Club of Florida. Several ponds are visible from the golf course that belong to homeowners. The golf course does not have any control over these areas, but hopes to encourage shoreline vegetation plantings through examples they have set.

Several homeowners have already spent their own money

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Gladys Walsh, Jeff's office assistant, fills the bird feeders three times a week and keeps a calendar on wildlife activity on the course. Photo by Jeff Klontz.

to enhance water features between their homes and the golf course. The golf course staff has willingly cooperated with these homeowners to help with planting and maintaining these areas.

The Village Lake, north of the first hole, was enhanced this summer by donations from the city. Arrow head, pickerel weed and pond apples were planted in the lake edge. Above the water line, oaks, simpson stopper, dwarf firebush, wild coffee, and geiger trees were planted.

In addition to providing food sources and habitat area for wildlife, this lake enhancement has improved the view from the road, as well as from the golf course.

#### **Water Conservation Efforts**

In 1986, more than 75 percent of the pipe work was replaced when they redesigned the golf course. In 1990, the Country Club of Florida installed a computerized Rain Bird Maxi 5 irrigation system. This new system has:

- · Reduced irrigation usage by 40%
- Reduced power usage by approximately 30%
- Improved dependability of existing irrigation system

A weather station was installed with this computerized irrigation system that determines evapotranspiration rates, which helps determine how much water will be applied daily. The irrigation technician/assistant, Leonardo Flores, monitors the irrigation system on a daily basis, and is quick to make adjustments or repairs when needed.

Automatic decoders on the east and west side of the course will shut down the irrigation system if it rains.

From 1990-1995, supplemental irrigation with individual head control was added around all green complexes.

The system has been on "time of use" since 1990 with FPL off-peak power use.

In 1998, a new VFD Flowtronix station will be added. The utility plant is in the final stages of installing the transmission line that will connect them with the city wastewater utility plant.

Starting in April 1998, CC of Florida will begin paying for their water at 20

cents per 1000 gallons and store this water on the course in a lake on No. 5. This storage lake also has the capacity to collect 60% of drainage runoff from the golf course. During unusual rainy periods, Jeff has the option to use surface drainage water from the course before having to supply effluent into this storage area.

In the past, water has been available at no cost through deep wells, so keeping a sharp eye on water costs has become important. However, the club's future water supply is assured.

#### **Audubon School Program**

Jeff also heads up a group of Palm Beach Chapter superintendents who are working with Kidstown Learning Center in Boynton Beach. With the help of Buzz Jaskela, plans were drawn for a butterfly garden, aviary, caterpillar and a vegetable garden. They have also created habitat for some burrowing owls, hoping to entice them onto the school property from an adjacent empty lot.

As past president of the Palm Beach GCSA, Klontz organizes a Saturday work day every other month, including getting all materials donated from local businesses, and works on a part of the plan for Kidstown. They encourage the children and teachers to participate in all projects.

#### Conclusion

The Country Club of Florida has a lot going for them. The membership, the Village of Golf, as well as the Audubon, Beautification and Green Committees that all have contributed to the success of environmental enhancement projects on the course and in their community.

Klontz, whom the Green Committee

calls "our superintendent extraord—inaire," is confident that in time, all of the members of the Country Club of Florida will be proud of the efforts under way to enhance the golf course for wildlife.

"Most importantly," he says, "we believe in the Audubon Program. We do not want to become certified for the sake of prestige. We want to become certified because we qualify and we are making the best effort to up-hold Audubon standards and enhance the Village environment".

\* Some of the information for this article was taken from the book, "A Brief History of the Country Club of Florida", written by Patricia Blunt Koldyke. Patricia is the daughter of Carleton Blunt, who originally purchased the property in 1955. Jeff Klontz, GCS also contributed to this article.

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All Things Considered...

## How Green Is Your Golf Course?

BY JAMES T. SNOW

National Director, USGA Green Section

The answer to this question depends on how you define the word "green." But first, let me tell you what today's politically correct answer should be. Today's courses ought to be very green, yet not so very green, both at the same time!

Confused? Let's look at a couple of definitions of the word green, and perhaps the previous statement will become more clear.

First of all, environmentalists use the word green to identify organizations, people, corporations, policies, etc., as being environmentally friendly. Unfortunately, few of these environmental people or groups use the word green when referring to golf courses.

On the other hand, golfers and others refer to the color of their golf courses as being green. Sometimes they refer to their courses as being lush green, a comment that suggests turf of a very dark green color and density, and one that receives a high degree of pampering.

Actually, the term lush green makes me cringe. It makes me think of turf that receives too much water and fertilizer, primarily for the sake of appearance. It suggests turf that is very pretty to look at but that is weak, poorly rooted, susceptible to diseases and insects, and likely to keel over at the first sign of hot weather.

It also suggests turf that is of poor playing quality, characterized by lack of firmness and susceptibility to plugging and large divots. This type of turf requires frequent watering and regular applications of fertilizer and pesticides to keep it going. It's bad for the playing of the game of golf, and it's bad for the environment.

Having seen the two perspectives on the word green, can you see how it is advantageous to have a golf course that is both very green (environmentally) and not so very green (lush)?

There are very few people who keep track of what's going on in the world of golf who don't realize the importance of environmental issues as they relate to the future of the game of golf.

Simply put, issues relating to water use, potential pollution from fertilizer and pesticide use, loss of threatened species and natural habitat, and effects of golf course on wildlife all threaten to stall the development of new golf facilities and severely affect the quality of existing facilities.

Many people also realize that the game of golf has responded to these important issues in many different ways. For example, the USGA has spent more than \$16 million over the past 15 years on research to develop new grasses for golf that use less water and require less pesticide use, and to investigate the effects of golf course activities on the environment.

The Golf Course Superintendents Association of America has instituted a variety of environmental educational programs for its members, and other organizations have responded with educational publications and programs.

Not enough people realize, however, that everyone needs to play a part in resolving golf's environmental issues if the game is to continue to flourish. Golf course superintendents are the most important people in the game of golf when it comes to putting the environmental green into the game, and whereas many superintendents have responded in an admirable fashion, too many others have not.

In my opinion, an ideal program has been established to assist every golf course to do good things for the environment and, in the process, to do good things for the game of golf — the Audubon Cooperative Sanctuary Program for Golf Courses.

Administered by Audubon International and funded by the USGA, the program can help educate superintendents, course officials, and golfers about

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78 THE FLORIDA GREEN

the issues, and at the same time can make the public more aware of the environmentally responsible activities of golf

I'm pleased to say that over 2600 golf courses have signed up for the program.

It's exciting to see how hundreds of these courses have enthusiastically developed and implemented conservation programs, and that many have become certified in one or more of six different categories established by Audubon International.

Yet I'm concerned about the many courses that are not doing their share for golf and the environment. Too many courses maintain the lush green look that compromises turf playability and suggests to those outside the game of golf that golf courses are environmentally irresponsible.

Superintendents must work to take the lush out of the game, and course officials must lend their support by rejecting the heavy-handed use of water,

Actually, the term 'lush green' makes me cringe. It makes me think of turf that receives too much water and fertilizer, primarily for the sake of appearance. It suggests turf that is... weak, poorly rooted, susceptible to diseases and insects, and likely to keel over at the first sign of hot weather.

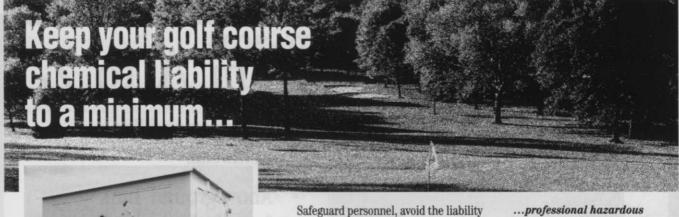
fertilizer, and pesticides required to obtain that extra degree of dark green color.

So what can you do? Begin by committing your golf course to an environmentally green maintenance program. Participate in environmental education programs to begin to think with an environmental mindset. Develop a written set of Best Management Practices, and establish an IPM program for your course.

If you have not done so already, join the Audubon Cooperative Sanctuary Program for Golf Courses, and follow through with their advice and recommendations. Convince neighboring courses to participate as well. For information about the program, call Audubon International at (518) 767-9051.

Do your part. Let's make sure golf is (environmentally) GREEN.

(This article updated and reprinted with permission from the USGA Green Section Record)



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Based in Selkirk, N.Y., AI launched its Cooperative Sanctuary System to work with private landowners in implementing environmentally sound practices to preserve and enhance natural resources. AI has developed such programs for businesses, homes, schools and golf courses.

"Though many people believe that state or federal governmental agencies and their staffs have sole responsibility for wildlife and habitat protection, it is clear that the majority of real property is owned by private individuals and organizations," says AI President and CEO Ron Dodson.

"Most state agencies do not have the resources to manage private lands. This

The school program is a hands-on approach for community leaders, such as the golf course superintendent, to work with students, faculty, parents and the community to promote environmental stewardship.

is why AI launched the Audubon Cooperative Sanctuary System."

The golf course superintendent profession has been a leading participant in the Cooperative Sanctuary System through AI's school and golf course programs.

As a national sponsor for the Audubon Cooperative Sanctuary program for Schools, GCSAA has partnered with Rain Bird to provide substantial funding and services to promote greater awareness and participation in the program.

The school program is a hands-on approach for community leaders, such as the golf course superintendent, to work with students, faculty, parents and the community to promote environmental stewardship.

"I cannot think of a better program for the golf course superintendent in which to be involved," says GCSAA President Paul McGinnis. "The profession has a strong commitment to environmental stewardship, and that is demonstrated daily on our nation's golf courses.

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To become certified in the program, schools must meet established requirements in environmental education, wild-life habitat management, waste management and resource conservation. Individuals from the community, such as golf course superintendents provide resources, expertise and supervision to transform school facilities into a certified sanctuary.

Projects include recycling, bird nest boxes, butterfly gardens and nature trails, among others.

"This is a unique opportunity for Rain Bird to take an active role in providing schools with hands-on environmental curriculum," says Rain Bird President Anthony La Fetra. "Rain Bird is well known for its commitment to the environment, so this project is a natural for us."

Along with the Audubon Cooperative Sanctuary Program for golf courses, sponsored by the United States Golf Association, the school program was born in 1991 to protect and enhance the quality of the environment on the golf course.

Golfcourse superintendents are largely responsible for implementing the activities that will lead to certification — a status golf courses achieve by meeting requirements in Environmental Planning, Public Involvement, Integrated Pest Management, Wildlife Food Enhancement, Wildlife Cover Enhancement, Water Conservation and Water Enhancement.

Today, more than 1,800 golf courses participate in the Audubon Cooperative Sanctuary Program for golf courses.

In late 1995, AI and GCSAA began discussing how to share the expertise and success on the golf course with educational institutions.

Rain Bird expressed a desire to be-

come involved in the program in 1996, resulting in a partnership that continues to gain momentum. GCSAA chapters and individual members are adopting schools and developing fund-raising mechanisms to guarantee long-term viability. All parties agree, the success of the program lies not only in implementing sound practices, but continuing for the benefit of others.

For additional information about the ACSP for Schools, contact Audubon International at 46 Rarick Road, Selkirk, N.Y. 12158, 518/767-9051 or GCSAA at1421 Research Park Drive, Lawrence, Kan. 66049, 800/472-7878.

Editor's Note: This is the third and final GCSAA syndicated article that was distributed nationwide to help promote the superintendent's image to the general public. The next public relations emphasis will be on educating influential golfers and owners at golf courses about the value of the superintendent to the total operation.

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#### Do-It-Yourself Calendar Funds Wildlife Projects

BY DARREN J. DAVIS, GCS

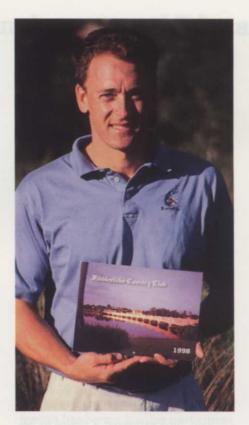
Scott Lavis, Golf Course Superintendent at Fiddlesticks Country Club in Fort Myers combined his desire to enhance the environment at his golf course, with a very effective public relations project. The project is a "wild-life enhancement calendar".

The "flip style" wall calendar features twelve scenic photos of the beautiful surroundings that create the highly regarded, Fiddlesticks Country Club. The pin-up calendar is being purchased primarily by the members and guests of Fiddlesticks Country Club at a selling price of only \$10.

The low cost is certainly a very good deal for the golfers that purchase one. However, it is even a better deal for the bluebirds, red bellied woodpeckers, flycatchers, wrens, purple martins, bats, fish and other wildlife that make their home on, or near the Fiddlesticks golf course.

Scott explained, "Half of the money that is raised will be used to construct and maintain birdhouses, fish habitats, and for the planting of wildlife cover and food sources at Fiddlesticks."

The calendar also has numerous side benefits besides being a first-class calendar that will provide twelve months



Scott Lavis, golf course superintendent at the Fiddlesticks Country Club in Ft. Myers shows off the wildlife enhancement calendar created by the maintenance staff. Photo by Darren Davis.

of enjoyment for those who purchase it.

"The project has instilled a lot of pride in the crew members," Scott said. "They are certainly very proud of the calendar featuring their golf course that can be hung on their wall. They also have pride in the fact that they, the golf

The pictures used to create the calendar are the products of a photo contest held among the golf course crew members.

course maintenance staff, created this calendar that is being sold to the members."

The pictures used to create the calendar are the products of a photo contest held among the golf course crew members. The crew members are also all pictured in a group picture on the last page of the calendar. The picture is located beneath the phone numbers to all of the departments of the Club... and they even included golf course maintenance!

Lavis also realizes the calendar provides a great public relations tool for his staff and himself. The calendar provides his bosses, "the members" a reminder every time they look at the calendar that the golf course superintendent and his staff do a lot more than just "cut the grass."

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#### True Grit(s)

Dikki-Jo Mullen of Orlando wrote an interesting letter to the Orlando Sentinel last January. The letter talked about floating fire ant nests that rising water levels have made into drifting hazards. The part of the letter that took me by surprise was her remedy for fire ant control on the lakeshore.

#### Mullen writes:

"I dreaded putting conventional poison on the mound, right at the edge of the water. A folk story told by an Alabama farmer long ago came to mind. He said that if grits – dry, uncooked, plain grits – were placed on a completely dry fire ant mound, the ants would all be dead the next day.

"I tried it, pouring an envelope of instant cheese grits, as I didn't have the old fashioned kind. It worked beautifully. The next day the ants were all dead, and I didn't have to resort to using an environmentally dangerous poison."

I applaud Mullen for her environmental awareness. I promise to try this remedy on the next fire ant mound in my yard and report results in a future issue and the same goes for anyone else out there.

**Question:** Does the Quaker Oats Company now have to have an EPA registration number for grits?

Joel D. Jackson



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# Bermudagrass Speeds

### Can FAST Greens be GREEN?

Differences among varieties were significant statistically, but of small practical value

BY PHILIP BUSEY, PH.D. AND SUSAN BOYER

University of Florida, Fort Lauderdale

all-roll distance, otherwise known as "green speed," is an important physical characteristic of putting surfaces.

By Newtonian physics, the distance a ball rolls is inversely proportional to the coefficient of rolling resistance of the surface. In our case, the surface is grass. The smoother the green, the farther the roll.

Smooth surfaces make ball-roll direction sensitive to topography and spin, factors exploited by skillful golfers who "read" the green. Close mowing generally increases greens speed, that is, reduces the friction of ball roll (see Figure 1).

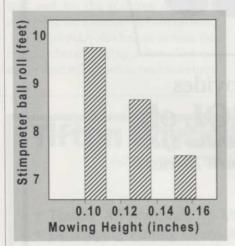


FIGURE 1. The closer the cut, the faster the ball speed, although closely mowed greens may be severely damaged. Data from Gaussoin, R., J. Nus, and L. Leuthold, 1995. A modified Stimpmeter for small-plot turfgrass research. HortScience 30:547-548.

Golf courses often reduce mowing height in preparation for tournaments and member-guest events, providing extra challenge. Drier greens also tend to be faster, but are susceptible to other problems.

Unfortunately, bermudagrass is damaged by the practices used to increase greens speed. In Florida, mowing too closely conspires with damp summer weather to bring on bermudagrass decline.

Is greens speed a grass characteristic? Are some grasses naturally "faster?"

We systematically measured and compared green speeds of 12 bermudagrass varieties, were mowed at 1/8 to 5/32 of an inch.

Bermudagrasses included commercially promising *Cynodon transvaalensis* (African bermudagrass) lines developed by Dr. Charlie Taliaferro of Oklahoma State University as well as Tif-Eagle (formerly T-72) developed by Dr. Wayne Hanna at the USDA in Tifton, Georgia.

Tifgreen and Tifdwarf were obtained from the Georgia Seed Development Commission, managed by Dr. Earl Elsner. We thank Mr. Marcus Prevatte for managing the plots, under supervision by Dr. Monica Elliott, and

with the support of the Florida Golf Course Superintendents Association.

Differences in greens speed were highly significant statistically, but of small practical value (see Table).

For example, during the few months that Tifgreen (328) survived the close cutting, it was 4 percent slower than dwarf and ultradwarf greens types (Quality Dwarf, Classic Dwarf, and Tifdwarf). During the cool spring of 1995, when the *Cynodon trans*—

| USGA Stimpmeter Estimated Ball Roll |         |       |       |       |      |        |        |
|-------------------------------------|---------|-------|-------|-------|------|--------|--------|
|                                     | 1995    |       |       | 1996  |      | COLL   | s. wer |
|                                     | Feb.    | Apr.  | Nov.  | Apr.  | Jun. |        |        |
| Mowing Ht (mm)                      | 3.8     | 3.2   | 3.2   | 4.0   | 3.9  | Mean   |        |
|                                     | English |       |       |       |      | Tilles | Metric |
| Quality Dwarf                       | 8'5"    | 8'4"  | 10'3" | 7'10" | 8'1" | 8'7"   | 263 cm |
| Classic Dwarf                       | 8'4"    | 8'1"  | 10'2" | 7'11" | 8'2" | 8'6"   | 261 cm |
| PF-11                               | 8'5"    | 8'4"  | 9'9"  | 8'0"  | 8'0" | 8'6"   | 260 cm |
| T596                                | 8'4"    | 8'0"  | 10'0" | 8'2"  | 8'0" | 8'6"   | 260 cm |
| TifDwarf                            | 8'1"    | 7'11" | 9'10" | 7'10" | 8'1" | 8'4"   | 256 cm |
| TifEagle                            | 8'2"    | 7'10" | 9'7"  | 7'10" | 8'2" | 8'4"   | 254 cm |
| CTR2570                             | 8'2"    | 7'1"  | 8'11" | 7'5"  | 7'7" | 7'10"  | 241 cm |
| Tifgreen                            | 8'1"    | 7'8"  |       |       |      |        |        |
| CTR3048                             | 8'7"    | 7'1"  | 8'9"  | 3-    |      |        |        |
| CTR2747                             | 8'4"    | 7'2"  |       |       |      | 75     |        |
| CTR1111                             | 8'3"    | 7'0"  | 8'4"  | 114   |      |        |        |
| CTR2352                             | 8'1"    | 7'1"  |       | H     |      |        |        |
| Mean of top six grasses             | 8'4"    | 8'1"  | 9'11" | 7'11" | 8'1" | 8'5"   | 259 cm |

Table 1. Each tabular value is based on the average of three pairs of values ("upslope" and "downslope;" see text) from four replicated plots. Estimated USGA (76-cm) Stimpmeter distances were calculated by a transformation from the value for the 19-cm Stimpmeters which we used. This is explained in the full report, Busey, P. and S.E. Boyer. 1997. Golf ball roll friction of Cynodon genotypes. International Turfgrass Society J. 8:59-63.



Dr. Roch Gaussoin, University of Nebraska loaned us these "modified" Stimpmeters for small plot research.

vaalensis plants were still growing healthily, they were 14% slower than dwarf and ultradwarf types.

However, the slower grasses were in-

appropriate for the site.

By the summer of 1995, Tifgreen and *Cynodon transvaalensis* underwent an adaptive tailspin. The combination of

close mowing and moisture caused them to thin and die back. By November 1995, when the maximum speeds were recorded (10 feet 3 inches for Quality Dwarf), sev-



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eral *C. transvaalensis* grasses had already died out.

Ignoring the poor performance of *Cynodon transvaalensis* and Tifgreen, the range of average greens speeds of varieties was less than 4%, with TifEagle the slowest at 8 feet 4 inches and Quality Dwarf the fastest at 8 feet 7 inches.

Not much of a range!

Seasonal variations had much more effect on green speed than did grass variety. The fastest green speeds recorded in November, 1995 (based on top six grasses) were 25% faster than the slowest overall speeds recorded in April 1996.

Considering that the plots were only 8 feet by 10 feet, including alleyways, you may wonder how we were able to overcome the problem of finding sufficiently wide areas to collect the data.

This was accomplished with the help of Dr. Roch Gaussoin, University of Nebraska, who loaned us a set of shortened Stimpmeters developed by Dr. Larry Leuthold, Kansas State University, and reported in 1995 in HortScience (30:547-548) along with Dr. Jeff Nus, Golf Course Superintendents Association of America.

We used a 19-cm stimpmeter for greens speed measurement and adjusted our measurements to predict the distances for a standard 76-cm USGA Stimpmeter.

We also used the slope correction of Dr. Doug Brede, also based on Newton's laws of physics. Although there was effectively no slope in the plots, wind was unavoidable. With the slope correction and repeated sub-sampling, our coefficient of variation was extremely small, only 1.75%.

We hypothesize that rolling friction is primarily a characteristic of the compressibility of the turf canopy, which reflects the thickness and health of the turf. As an example, we also measured green speed on a RoundUp-killed plot. The ball roll was the fastest of any of our records, 11 feet 6 inches. Most Florida greens committees do not want brown

greens, even though the close mowing practices to achieve speed often accomplish brown greens.

Only a few practices seem to increase green speeds without seriously compromising turf quality. They are: (1) rolling; (2) double-cutting; and (3) light, frequent topdressing. In the personal experience of one of us (S. E. Boyer), "sliming," the application of a viscous wetting agent, may help increase surface slickness and improve moisture uptake under the relatively dry conditions that seem to favor speed.

While the search for a "fast" greens variety may go nowhere, there is certainly value in using varieties such as Tifdwarf, Quality Dwarf, and TifEagle that can more-or-less withstand the 1/8 to 5/32 mowing heights of our study. Greens committees should also take a look at the Roundup "green" and realize that if you want real speed, you need something other than grass.

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

Here in Florida, a goosegrass escape isn't exactly front page news. But when a super who I've dealt with for years called

me in something close to panic because his goosegrass treatment was leaving ugly brown spots, it got my attention. Seems the problem was caused by an old fashioned herbicide that he'd used for years. I suggested he change to an

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right through the year. He liked the idea, incorporating it into his

IPM program. Even sent me a goose call in the mail, just in case the problem should

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ever reoccur. Fortunately, it hasn't.



#### Supers Can't Create Sunlight, Say UF Turf Pathologust, USGA Agronomist

Editor's Note: As spring unfolds and some of our turf remains thin and less than ideal, we should not forget the lessons two of our leading turf authorities, Dr. Monica Elliott, turf pathologist from the University of Florida and John Foy, director USGA Green Section Florida Region, tried to teach us during the disasterous winter weather patterns.

While some club officials have reportedly derided these facts of nature as excuses, intelligent golfers understand that this has been an abnormal winter and they appreciate the extraordinary efforts of superintendents to provide good playing conditions. You can lead a person to the facts, but you can't make them think! Here is a summary of the facts for those who care to think!

#### **TO: Florida Golf Course Superintendents**

#### FROM: Monica L. Elliott, Turfgrass Pathologist

I have just spent three days examining courses in Broward, Palm Beach, Lee and Collier counties, and I feel like I have spoken with a superintendent in every county. This letter has...purposes. First, to inform superintendents that your situation is probably not much different from your neighbor's. Second, to inform the golfing public why this weather pattern is not conducive for growing grass.

#### Plant Physiology

...Photosynthesis is the process by which plants use energy from sunlight to breakdown water and carbon dioxide to produce the carbohydrates (starch and sugars) needed for a plant to grow.

...Bermudagrass requires significantly more sunlight than bentgrass to fix CO<sup>2</sup>. That is why bermudagrass is not looking very healthy in our current weather patterns. It needs full sunlight, especially in the winter when sunlight is reduced due to short days and long shadows.

...The rainfall in December was above normal. It actually flooded some areas. After only a week into 1998, the rainfall



is already above normal for January! This situation has been aggravated by cool temperatures and overcast days. Nothing can be done about the weather.

#### Algae Slime Mats

... The primary problem observed on bermudagrass greens that have thinned is the development of algae... Algae have all the same growth requirements that bermudagrass does, but algae love water and, even more important, fix CO² like a bentgrass plant. So, it would be expected for algae to become a problem under current circumstances.

#### Nutrition

...Since many of the putting greens are water saturated or close to it, the amount of oxygen present in the root zone is probably quite limited. It also means those pesky root pathogens may be active. This means the root system is not functioning adequately. One of the purposes of roots is to absorb nutrients in the soil. Without nutrients, the plant will not be as healthy.

#### **Cutting Height**

...I know golfers hate to hear this solution, but it really does work! By increasing the height of cut, the plant has more green leaves which means there are more leaves for photosynthesizing (See Plant Physiology 101 above) which means the plant can produce more carbohydrates which means the plant will be healthier and grow better. There are ways to increase the cutting height and maintain decent speed (note I didn't say tournament speed): frequent light topdressings, or rolling 3 or 4 times a week are examples.

And from the USGA Green Section, Florida Region Director, John Foy

RE: 1997/1998 Florida Winter Golf Season From time to time, USGA Green Section offices have sent out informational letters to courses to inform golfers about situations that are having an impact on a large number of facilities in their area.

...Unfortunately, environmental conditions... have caused problems in providing the level of course conditioning and quality desired at facilities throughout Florida. Over the past few weeks, I have conducted Turf Advisory Service (TAS) visits at courses from Jacksonville to Miami. It has been a general finding that the quality of, particularly putting surfaces, has been an issue.

Certainly by this point everyone has heard about the El Nino situation in the Pacific Ocean that is having an impact on weather across the country... an abnormal weather pattern has been prevailing. Along with the early onset of cool temperatures, frequent rainfall and numerous heavily overcast days has had a significant impact on turf health and the level of course conditioning and quality. This is true for both overseeded and nonoverseeded bermudagrass putting surfaces.

In the South Florida area where winter overseeding operations are not as common a practice, again, the cool, wet and overcast weather has had a big impact on the base bermuda turf cover. Especially at courses where extremely low heights of cut are dictated to maintain fast putting speeds, a progressive thinning of turf density was often experienced and this was followed by a rapid invasion of surface algae.

Then, regardless of efforts, problems were encountered with producing a recovery response. It has also been a common finding on TAS visits that the impacts of the weather have been further accentuated in locations where other turf growth-limiting factors such as shade, concentrated traffic patterns and/or restricted drainage exist."

All too often when the subject of weather is brought up, some golfers are of the opinion that excuses are being made. However, as with every other agricultural endeavor, environmental conditions play a major controlling role in turf growth and

in turn the type of course conditioning that can be provided. On a positive note, the base bermuda turf cover of Florida golf courses does possess a tremendous recuperative potential. Thus, with a few weeks of sunny, warm and dry weather, a good turn-around in course quality can be achieved.

...until more favorable environmental conditions occur, some degree of patience and understanding will be required.

#### Thanks for Pledge

On behalf of The GCSAA Foundation Board of Trustees, Campaign Cabinet and Committee Members, as well as all superintendents, I thank you. Your recent pledge of \$300 will allow The GCSAA Foundation to support projects in applied research and education programs to help advance the superintendent profession within the ever developing game of golf.

We will report on successes that are a direct result of this campaign through

GCSAA publications. Please know that these are a result of your generosity.

> Iamie Ortiz-Patino Carnpaign Chairman

The "Investing in the Beauty of Golf" endowment fund campaign is perhaps misnamed. Maybe it would be better to call it "Investing in the Future of Golf."

I see this drive as another way to diversify and maximize our resources for funding turf research in the future.

We will always focus on supporting in-state fundraising. But, we will also be able to submit Florida projects for funding from this \$3.5 million dollar war chest. Donations from the member level will be vital to the success of this venture.

With Toro's generous matching funds challenge, my donation is now worth \$600.

Sign up today!

Joel Jackson, CGCS GCSAA Class A Retired Member

#### Must-Read Magazine

This note goes out to Joel Jackson, Mark Jarrell and the others responsible for "The Florida Green." I'd just like to commend you on the general excellence of your magazine. It's certainly a mustread for me, a writer who covers the industry. Great job.

If ever you have any suggestions or input for Golf Course Management magazine please give me a call or drop me an e-mail.

> Mike Perrault Staff Writer Golf Course Management

On behalf of our Florida Green team, thanks for the kudos. we couldn't do it without the support of the FGCSA members.

Joel D. Jackson, Editor

(NOTE: I have accepted an invitation to serve on GCSAA's Publication committee for 1998.)



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## What's a real double cut?

#### Turf management tip gleaned from the Internet may help attain specific green speed

Editor's Note: As a superintendent who tended to use a cross-cut pattern on a double cut, this was an interesting tidbit I thought might be worth sharing for folks trying to attain specific greens speeds for special events. This discussion came from Turfnet Associates, Inc. which has a monthly newsletter and a web site. I have consistently found interesting information and wide-ranging discussions in the newsletter. I'm just now accessing the web site. In this information age, a subscription to Turfnet may be worth your while. Contact: Peter L. McCormick, Editor, 21 Brandywine Rd, Skillman, NJ, 08558 or call 1-800-314-

Chuck Murray, CGCS, Edgewood Country Club, Charleston, W.Va. asks: "Running the risk of covering real old ground, I can't remember ever hearing anything about the mowing direction when double-cutting greens or rolling greens after mowing.

"In order to negate the 3- to 6-inch difference in Stimp readings down a light stripe versus a dark stripe, we began reverse rolling down the same stripe the mower traveled, but in the opposite direction. Same with double cutting... down the dark stripe removes more leaf, also, than "cross cutting" and more closely equalizes the roll down the light and dark stripes. Is this the common practice with triplex mowing?"

Jeff Michel, CGCS, Mount Vernon CC, Alexandria, Va. replied: "Wow! You think it's old ground, but I've been at this 14 years and never even thought about reverse mowing on a double cut. We have always used perpendicular directions. You stated that the reverse cut

picks up more clippings — how does the reverse roll affect the roll of the ball? This calls for some experimentation on my part!"

Murray fired back: "Jeff, the idea came to me when we purchased our Tri-Rollers for the greens mower back in 1994 and did a lot of Stimp readings to determine for ourselves what benefit we were experiencing. In that process, we found that the rolling could be as much as 6-inch difference on the light stripe versus the dark stripe. Thus, we began to "reverse roll" down the dark stripe and brought that differential down to 2" - 3".

Following that, we found that "reverse mowing" when double cutting "harvested" more crop and reduced the grain. Our greens are predominately Penncross."

Credit: Turfnet Monthly, August 1997.

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#### GCSAA + FGCSA + FTGA = POWER

BY RICK TATUM, GCS The Forest Golf Club

CSAA, FGCSA and the FTGA.
Each of these Associations has its strengths and weaknesses.
The GCSAA is our national

The GCSAA is our national association that is strong in numbers of members and money. This association has come a long way in promoting our profession to a higher level.

I applaud the work that these volunteers have contributed to make our industry what it is today. My job is better in many ways due to their efforts.

The GCSAA also has a weakness which is in handling local and state-wide issues. Please do not get me wrong: we have made great strides in

having the GCSAA help with these issues and I am sure we will improve in these areas, but it is a national organization which is mostly concerned with the big picture.

The FGCSA is our state association which also is strong in numbers of members. We use the association to attack local and state issues concerning the golf course superintendent.

I also applaud these volunteers that have donated their time and effort to make my job one of the best in our industry.

The FGCSA does a wonderful job in funding educational seminars to make me a better golf course superintendent. Also, the funding that is used to fight statewlde issues has elevated our position in the golf industry.

## Support the people who are supporting you.

The weakness I feel the FGCSA might have is that the turf industry is bigger than just golf courses. We need to support the turf industry as a whole. This includes the FTGA.

The FTGA awarded over \$635,000 for turf research in the past six years. I know that all this research is not solely directed at golf courses, but we reap the benefit of 80 percent of this research. The FTGA has an annual conference and show which is set up mostly for the benefit of golf course superintendents.

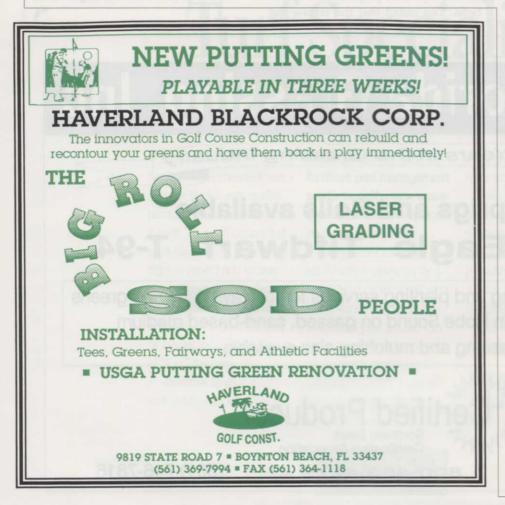
The FTGA is working with the University of Florida to hire a turf coordinator who has a strong background in golf course turf. There are many reasons why we should support the FTGA, but the biggest would be we are stronger together than we are apart.

Last year the GCSAA summoned the state chapters to put in new bylaws. In order to be a member of your state chapter you also had to be a member of the GCSAA. I felt this was a good idea. Support the people who are supporting you. Well, the FTGA is working hard to improve the turf industry in this state, I feel we should work harder at supporting the FTGA. Remember, we are stronger together than apart.

GCSAA + FGCSA + FTGA = POWER!

#### On brevity

The Lord's Prayer is 66 words, the Gettysburg Address is 286 words, there are 1,322 words in the Declaration of Independence, but government regulations on the sale of cabbage total 26,911 words.



#### **Call for Articles**

This is a call for articles for the 1998 issues of the Florida Green.

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

HANDS ON TOPICS for 1998: Share your best practices and tips for these upcoming topics. Slides or photographs are encouraged.

- Summer Issue Selling Your Budget to the Board.
- Fall Issue Managing Overseeded Greens Through "The Season."

SPOTLIGHT: People and events making news in Florida. From award

winners to chapter tournaments and other accomplishments. Send in your story. Slides or photographs encouraged.

SUPERINTENDENT'S JOURNAL: Personal observations or experiences related to any phase of the turf management profession. Slides or photographs encouraged.

PROFESSIONAL DEVELOPMENT: General management topics beyond turf. Examples: Education, facilities, personnel, computers, training, etc. Slides or photographs encouraged.

INDUSTRY NEWS: News items of interest to Florida superintendents from allied associations in the turf/horticulture industry. Slides

or photographs encouraged.

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

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

RUB OF THE GREEN: Articles and anecdotes with a humorous twist. Slides or photographs encouraged.

STEWARDSHIP: Superintendents are invited to submit ideas and articles about environmental issues and initiatives at their courses. Slides or photographs encouraged.



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## Can we be satisfied being the major stockholder in a company we don't own? I see no alternative...

ongratulations to new Director of Communications, Joel Jackson! The Florida GCSA created this position at the Winter Board meeting and promptly hired Joel to fill it. I can think of no one more

the responsibilities
that will elevate our
association to new
heights of prestige
and effectiveness. Joel
brings invaluable and
unequaled experience,
insight and dedication
to this position, and
we're lucky to have
him.
On that same day,

On that same day, the executive boards of both the FGCSA and FTGA met to

qualified to assume

improve communications, clear up misunderstandings and chart a course for the future. I think we accomplished quite a bit, but as always, time constraints left a lot of loose ends. Procedures were implemented to keep everyone better informed so the two associations don't work at cross purposes.

There are those who have some times tried to characterize any discord between the two associations as an us-against-them conflict. Such depictions are absurd, given the numbers of superintendents involved with FTGA. Superintendents or ex-superintendents make up 100 percent of the current FTGA Executive Board and about 50 percent of the Board of Directors.

It is frustrating to have other turfgrass professionals regard FTGA as "just another golf association," at the same time that some superintendents consider any FTGA initiative not directed specifically at superintendents as unimportant or unnecessary. Disagreements about policy, priorities and direction are to be expected in a state as large and diverse as Florida.

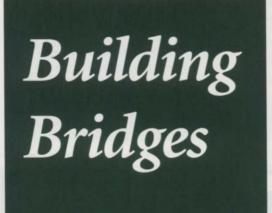
My respect and admiration for any superintendent sacrificing his or her time and effort on behalf of their profession by serving on a board is not diminished because we disagree on an issue.

One of the benefits of having two strong associations like FGCSA and FTGA in the same state is that a greater number of people are able to get involved and contribute to our industry. We just need to communicate better and develop a shared philosophy, while better defining the role each association should play in the development of our profession.

As a past president of FGCSA and a current officer of FTGA involved with one or both organizations for nearly 20 years running, I am guided by the following basic convictions, no matter which organization's hat I'm wearing on a particular day:

- Florida has a unique environment and most applied and some basic research need to be done in Florida to have validity to our situation.
- 2) The highly regarded university turfgrass programs in the country all have one thing in common a strong turfgrass association working closely with a university.
- 3) The larger and more diverse an organization, the stronger the organization.

Adhering to these principles, I get concerned when either the FTGA or FGCSA Board or a local chapter takes action that moves us in another direction. As superintendents, we operate at a faster pace and under greater pressure than the university system or turfgrass professionals in non-golf related activities, making it



#### Mark My Words



Mark Jarrell, CGCS Assistant Editor

extremely frustrating when we must wait for things to happen, like the of hiring a turf coordinator at the University of Florida.

This should not discourage or dissuade us from continuing to work on the foundations, networks and bridges necessary to achieve our long range goals of having: the strongest and most influential superintendent's association; the largest and best funded turfgrass association and the most respected and productive university turf program in the country.

These may seem like lofty — or even unattainable — goals, but all one has to do is consider the size and scope of the golf and turf industry in Florida to realize that the potential is here to

accomplish all this and more.

Superintendents can't do it all on their own, but we have the drive and the talent to spearhead the effort. As Joe O'Brien of GCSAA put it when trying to analyze the FGCSA's relationship with the FTGA, "Can we be satisfied being the major stockholder in a company we don't own?"

I see no alternative if we're going to continue growing and moving forward. Let's not kid ourselves about where the money comes from for financing our current efforts, or future endeavors. Building bridges and forging alliances with other golf and turf interests and organizations is crucial for our future growth and success.

## BACK ISSUE SEARCH

Still looking for a copy of the April 1974 Florida Green! Dan Jones, editor emeritus of the Florida Green, has passed along to me an almost complete collection of issues! We are missing one issue, April 1974. If any of you packrats out there have a copy, please send it to me. I would like to have the complete collection bound in hard back covers to preserve the magazine's history.



Farewell happy fields. Where joy forever dwells: Hail horrors, hail Infernal world, and thou profoundest Hell. Receive thy new possessor: one who brings a mind not to be changed by place or time. The mind is its own place, and in itself can make a Heav'n of Hell, a Hell of Heav'n.

John Milton from Paradise Lost

ired of hearing about El Nino causing every problem except hair loss and bad breath? Me too. There have been a lot of lost paradises and unhappy fields this past winter as golf courses fell prey to marginal growing conditions overcast skies and record

rainfall.

## 'Hell' Niño and other Good News -Bad News

The good news is...
February has been sunnier and drier in most areas of the state.
The bad news is... wetter that normal conditions are forecast for spring, but who has been able to predict the weather lately? A record cold spell in March! Man it's tough trying to keep a golf

course looking perfect under these roller coaster conditions.

The good news is... we received a lot of information from the GCSAA, the USGA Green Section and the University of Florida to help explain the effects of these abnormal conditions on turf quality. The bad news is... some club officials take one glance at the facts and toss them aside calling them excuses instead of explanations. You can lead a person to the facts, but you can't make them think.

The good news is... some concerned golfers learned more about our business because of this situation. The bad news is... more superintendents will be put through uneccessary hell by shortsighted and hardheaded people who still "demand" instead of "understand."

The good news is... course conditions will improve with better weather. The bad news is... well usually there is no bad news for good weather conditions, unless it doesn't happen fast

enough for those impatient souls who expect perfection in everything and everyone except themselves.

There's more good and bad news than just the weather and its complications.

The bad news is... EPA is trying to take some short cuts in reviewing pesticides under the Food Quality Protection Act. That could lead to premature removal of uses from product labels. The good news is... manufacturers and end users are uniting in a grass roots campaign to keep Congress informed of the facts. Letter writing voters have influence.

There's also bad news looming for MSMA users as EPA and DEP get gung-ho about arsenic levels on golf courses. The good news is... naturally occurring background arsenic levels (it is a natural element, you know) are often higher than what EPA wants to legislate. Now that would be a neat trick if they can pull that one off.

Be assured there will lots of discussion on this issue before it's over. In the meantime watch what you do around your mix and load sites, folks. That's where samples keep coming back positive.

And perhaps the best good news is... the University of Florida has finally found a turf coordinator for IFAS. After two years of sifting through applications and resumes and conducting interviews, and then having to regroup after the first search process came up empty, the university named Dr. John Cisar from the IFAS Research and Education Center in Fort Lauderdale to head the turf program.

Dr. Cisar has probably been one of the most prolific researchers on turf-related projects in the state in recent years, focusing on the impacts of turf management procedures on the environment with lots of positive results for our industry.

You won't hear any bad news from me on this decision. The only negative was that the process took too long, but now that's old news not bad news. Good luck, Doc! We're with you 100 percent even if IFAS can't do anything about the weather.

After all this if your golfers still complain, just tell them I said, "To 'El' with it!"

#### Green Side Up



Joel Jackson, CGCS Editor

## SOMEWHERE THIS YEAR A SUPERINTENDENT PLANTED THE ONE MILLIONTH POUND OF CYPRESS POA TRIVIALIS!

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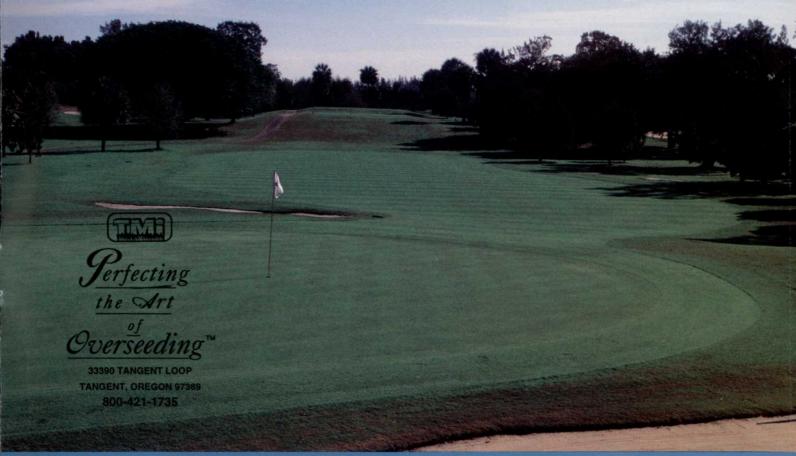
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Photo of 70% Cypress Poa trivialis and 30% Trueline Creeping Bentgrass Green courtesy of Banyan Golf Club in Palm Beach, FL. Dan Jones, CGCS Golf Course Manager



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