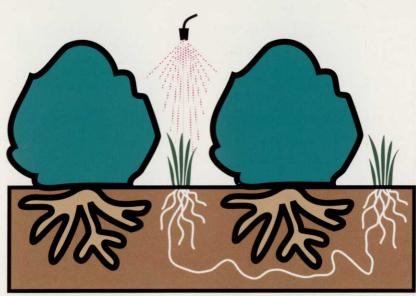


Take-AwayTM

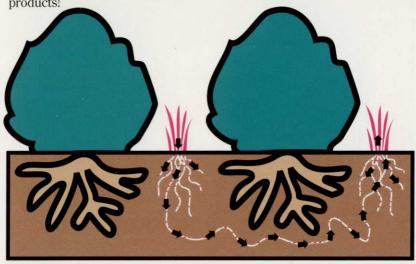


Take out unsightly grassy weeds with LESCO Take-Away™ Postemergence Herbicide!



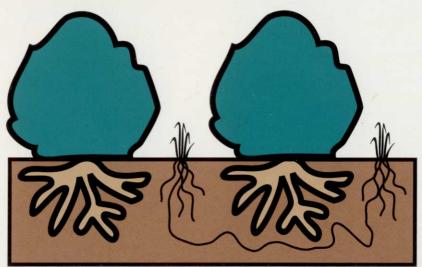
Selective

LESCO Take-Away controls over 30 problem annual and perennial grassy weeds. It is labeled for over-the-top application on over 300 species of ornamental plants — that's three times as many ornamentals as competitive products!



Systemic

Take-Away moves quickly from treated foliage to all growing points and destroys the entire grassy weed plant—shoots, roots, rhizomes and stolons. Take-Away is rainfast one hour after application.



Fast Acting

Growth of treated grass virtually ceases within 48 hours after application. Grass will show symptoms of loss of vigor, yellowing or reddening. Death of grass usually occurs within 1-3 weeks, depending on species and environmental conditions.

To Order, contact your LESCO sales representative or call (800)321-5325.



20005 Lake Road Rocky River, Ohio 44116

Fertilizers, Seed, Control Products, Equipment, Parts

Take away the competition!

Give ornamentals a fighting chance! Grasses compete with ornamentals for moisture, light and nutrients and can also harbor insects and disease-causing organisms. Take-Away removes this threat without injuring desirable plants.

Take-Away controls over 30 annual and perennial grassy weeds including tough-to-control perennial grasses like bermudagrass, torpedograss, quackgrass, johnsongrass, kikuyagrass, guineagrass.

Cut costs!

Take-Away reduces the need for expensive handweeding. It requires only an over-the-top spray application

for quick results.
Apply LESCO Take-Away to actively growing grasses before they reach the maximum size and before tillering and/or seedhead formation. Always use a wetting agent like LESCO Spreader Sticker for better adhesion and improved performance. Rainfall or irrigation occurring one hour or more after application will not affect performance.

Refer to label for specific application rate information. Always read and follow label directions when applying any chemical product.



Take-Away TM Grassy Weed

Selective Postemergence Herbicide for Use on Ornamentals

LESCO

lake-Away

Selective Postsmergence Herbicide for Use on Ornamenta

Keep Out of Reach of Children CAUTION

closed Supplemental Label Fo ste Precautionary Statements plication Instructions.

NET CONTENTS: 16 FL Oz.

LESCO, INC

#019280

Keep Out of Reach of Children CAUTION

e Enclosed Supplemental oel For Complete cautionary Statements Application Instructions.

Reg. No. 10182-104-10404 Est. No. 44616-M0-01

Postemergence Grassy Weed Control in Ornamentals. ACTIVE INGREDIENT:

Fluazifop-p-butyl
Butyl (R)-2-[4-[[5-(trifluoromethyl)-2-pyridiny]]oxy)
phenoxyl propanoate* 13.00%
INERT INGREDIENTS 87.00%
TOTAL

Systemic Herbicide for Selective

*LESCO Take-Away Grassy Weed Herbicide contains 1 pound (+) isomer (fluazifop-p-butyl) per gallon

CONTENTS: 1 GAL.

#019230

NTS: 1 GAL. Manufactured for: LESCO, INC. 20005 Lake Road, P.O. Box 16915 Rocky River, Ohio 44116



The Original Clear Liquid Fertilizer Company For Your Turf Featuring...

- Flow-sensitive Injection Systems
- Total Concept Service... Delivery, Field Service, and Custom Blend Programs
- New "Micro Green" micro nutrient product line
- Enviro-Safe Containment Systems (state approved)

Pompano 1-800-432-2249 305-971-0022

Call Today!

Ft. Myers

813-332-5565



Pike Creek Turf Farms, Inc.

Route 2, Box 376-A • Adel, Georgia 31620 1-800-232-7453

Producers of Quality Sod and Sprigs Row Planting

- Tifway 419
- Tifway II

- Meyer Zoysia
- Tifgreen 328

- Tifdwarf
- Centipede

USING OUR VARIABLE SPEED PUMP STATION CAN HELP YOU SAVE VITAL PARTS.



Let's face it, in this business it pays to be backed by an industry leader. Because when your pump system goes on line, so does your reputation. And Flowtronex can help you keep both your golf course and your reputation intact with our incredibly reliable, power-saving pump station.

And how do we do all this? With an engineering breakthrough called Smoothflow™. Developed in 1986 by our team of engineers, Smoothflow is a sophisticated computer software program that automatically monitors and controls our pump

station. Which means you no longer have a need for a pressure control valve. And because of this precise control, our Flowtronex variable speed pump stations (VSPS™) have made pressure spikes and pump-related line breaks nearly extinct on our more than 200 golf course installations.

Smoothflow software also helps budgets by slashing energy use 15 to 50% when compared to conventional pump stations using control valves. This is one of the many reasons our VSPS is the industry's most popular. In fact, superintendents have bought twice as many variable speed systems from us as all our competitors combined.

So if you're in the market for a reliable, power-saving pump station, call Flowtronex International. We've got quite a track record for standing behind our customers. And their bottom lines.

For more information, call **1-800-537-8778** or **903-595-4785**. Or write Flowtronex International, P.O. Box 7095, Tyler, Texas 75711.





Officers

President Ray Hansen

Del Aire CC 4645 White Cedar Lane Delray Beach, FL 33445 (407) 495-0536

Vice President Thomas Benefield, CGCS

BallenIsles CC of JDM 10600 Ave of PGA Palm Beach Gardens, FL 33418 (407) 622-0177

Secy/Treasurer Mark Jarrell, CGCS

Palm Beach National GC 7500 St. Andrews Road Lake Worth, FL 33467 (407) 965-0046

Past President Joel Jackson, CGCS

Address FGCSA business to: 6780 Tamarind Circle Orlando, FL 32819 (407) 363-4514

Directors

Treasure Coast Scott Bell

Bent Pine Golf Club (407) 567-9422

Ridge Buck Buckner

Orange Tree Golf Club (407) 352-0330

Everglades Lou Conzelmann, CGCS

Fiddlesticks (813)768-2332

West Coast Frank Cook

Bardmoor Country Club (813) 392-1234

Palm Beach Paul Crawford

Palm Beach Country Club (407) 845-2395

Sun Coast Talbott Denny El Conquistador Country Club (813) 775-9709

Big Bend Scott Price

Capital City Country Club (904) 878-2791

South Florida Dale Kuehner, CGCS

Colony West Country Club (305) 721-5980

Central Florida Joe Ondo, CGCS

Winter Pines Golf Club (407) 671-1651

Seven Rivers Tim Sever

Sugar Mill Woods Country Club (904) 382-2100

North Florida Eddie Snipes, CGCS

Oak Bridge Club at Sawgrass (904) 285-5552

Staff

Secretary Marie Roberts

1760 NW Pine Lake Dr Stuart, FL 34994 Phone: Days (407) 692-9349



The USGA has chipped in \$4.1 million more for turfgrass research for projects through 1997. The award will fund projects to be selected in plant improvement and resource management.
COVER STORY FINE OLD CLUB GETTING MODERN
FGCSA SPOTLIGHT TWO KINDS OF PROFESSIONAL
ENVIRONMENT A PERMANENT WILDLIFE PRESERVE
TECH REPORT SPEED ISN'T THE ONLY MEASURE
GREEN PAGES IS EPA GIVING RIGHTS BACK TO STATES?43 Is it good news or bad when an EPA report says that states have the primary responsibility for protecting groundwater from pesticide contamination?
AFTERWORDS EFFLUENT FOR THE AFFLUENT?
GREEN SIDE UP I HEAR THE TRAIN A-COMING48 If you want to know which end is up in the future of golf course management, read

Editor Joel Jackson's parable about everyman in the turf management business.

The Florida Green

Official Voice of the Florida Golf Course Superintendents Association

Published six times a year: On the first of February, April, June, August, October and December

editor/publisher emeritus Dan Jones, CGCS

West Palm Beach

editor Joel D. Jackson, CGCS

Walt Disney World Address Florida Green business to: 6780 Tamarind Circle, Orlando, FL 32819 (407) 351-3729 (407) 363-4514 Fax (407) 827-4383 Work

publications chairman/ Tom Benefield, CGCS assistant editor

Ballenisles CC of JDM 10600 Avenue of PGA Palm Beach Gardens, FL 33418 (407)622-0177

Janlark Communications

Janlark Communications, Inc., publishes The Florida Green on behalf of the Florida Golf Course Superintendents Association, which sets all policies.

> publisher Larry Kieffer news editor Philip Pettus copy editor Janetta Kieffer contributing editor Kit Bradshaw architecture editor Brad Klein research editor Martha Dobson

Resources

photography Brian Everhart

Tradewinds PhotoGraphics 536 Ave. A, NE Winter Haven, FL 33880 (813) 293-2554

color separations Dimension, Inc.

1507 West Cass St Tampa, FL 33606

production film Typesetting Today/Printcrafters 658 Douglas Ave., #1114 Altamonte Springs, FL 32714 (407) 788-7343

printer Rinaldi Printing Co.

4514 Adamo Drive Tampa, FL 33605 (813) 247-3921

COPYRIGHT NOTICE: Copyright 1991, Janlark Communications, Inc. All rights reserved. May not be reproduced in whole or in part without written permission of the publisher. EXCEPTION: Official publications of all golf course superintendent associations affiliated with the Golf Course Superintendents Association of America are welcome to use any material contained herein provided they give credit and copyright notice.

EXTRA COPIES: Copies of this issue and some back issues are available from Janlark Communications at \$5 each plus shipping. Supplies are limited.

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

ADVERTISING: For rates and information, contact Janlark Communications, Inc. September/October closes August 31.

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



P.O. Box 336, Auburndale, FL 33823 813-967-1385 Fax 813-967-4553

Advertiser Index

A. Duda & Sons32	Most Dependable Fountains 14	
Almar Chemical Co14		
AmerAquatic Inc6	NK Medalist Turf3	
Ametek40	Nucrane Corp Inside Back Cover	
Aquatic Systems Inc32	Nutri-Turf, Inc40	
Atlantic FEC Fertilizer & Chemical 6		
	Pike Creek Turf Farms	
Central Florida Turf35		
Chemical Containers, Inc35	Rhone Poulenc3	
Classic Greens Inc		
	South Florida Grassing 30	
Delray Stake & Shaving6	Spread-Rite, Inc3	
Douglas Products46	Standard Sand & Silica30	
	Sunniland Turf Products1	
E.R. Jahna Industries12		
	Terracare Products Mailing Labe	
Florida Nurseryman41	The Lake Doctors19	
Florida Silica Sand18	TMI Turf Merchants	
Flowtronex International3	Tom Burrows Turfgrass Service 3	
	Total Turf Services3	
Golf Ventures7		
	Valent USA1	
Haverland Blackrock Paving24	Vigoro Industries2	
Lantana Peat & Soil34	Woodbury Chemical Co4	
Lesco, Inc25, Covers		
Liquid Ag Systems, Inc2	Zaun Equipment Co4	

Welcome!

The following companies are advertising in The Florida Green for the first time:

Florida Nurseryman	41
NK Medalist Turf	37
Nucrane Corp	Inside Back Cover

URFGRASS QUIZ

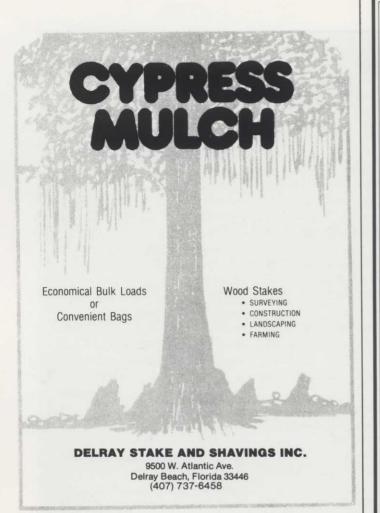
M M ASCARO



Answer on Page 34

Turfgrass area: sports field. Location: New Jersey. Problem: Turf

under stress in large circular pattern.



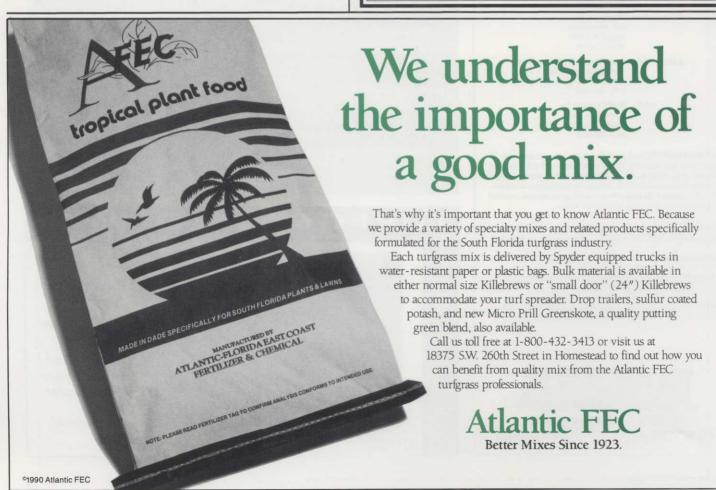
AmerAauatic

TOTAL LAKE CAPABILITY

algae and aquatic weed control fountains, installation & service lake & littoral zone design fish stocking & breeding wetlands establishment floating weed barriers water quality testing silt/turbidity control lakescapingTM free surveys

Serving golf courses and green spaces from Florida to the Carolinas

Your lake's best friend. sm



We Supply It, So You Can Work It...



FOR PRODUCT KNOWLEDGE, THESE EXPERTS SERVICE YOUR AREA.

David Miller	Central Florida
Jim Sartain	West Coast
Bob Schroeter	North Florida
David Cheesman	S.E. Florida
Shawn Zakany	S.E. Florida
Jim Wells	
Tracie Rodwell	S.W. Florida
David Barnes	Central Florida
Mike Ayer	West Coast
Marty Griffin	S.E. Florida
Mike Miles	West Coast

QUALITY PRODUCTS FOR YOUR GOLF COURSE, ITS MAINTENANCE AND APPEARANCE.

FERTILIZERS AND SOIL AMENDMENTS

Lykes Agri Sales Ringer Turf Products Liquid Ag Systems Inc. Dakota Reed-Sedge Peat

CHEMICALS

Helena Chemical Co./Ag Resources

SEED

Pickseed West Inc./Ag Resources

EQUIPMENT

Club Car Carryall
Daihatsu Hijet
Florida Sprayers Inc.
Crosley Trailers
Easy Picker Driving Range Vehicles
Douglas Rollers
RedMax Reciprocators
Rainjet Fountains
Windfoil Sprayers

ACCESSORIES

Cylex Granite Signs
Southern Screen and Embroidery Flags
Standard Golf Co.
Lewisline American Eagle
Par Aide Products
FlexStake
Motorola Radius Radios
DNA Sun Helmets
Hammers Recycled Plastics
Fox Valley Marking Paints
Lundrain Drainage Material
Spyker Spreaders
Master of the Links Wood Products
Hole-in-White (Cup Brightener)
Clover Lapping Compound

2582 OLD COMBEE ROAD LAKELAND, FLORIDA 33805 1-800-330-8874 ● (813) 665-5800 ● FAX 667-0888



Thanking you for your cooperation, service and time over the past year

s I write my last President's Message, I would like to reflect back to my first one and the three goals — association growth, research, and pesticide awareness.

During my term as president, we have increased our membership from 685 to 747. We also added a new chapter, Seven Rivers, which brings us to a total of 11. I would like to thank Eddie Snipes, Membership Chairman, and all who helped in this association growth.

Our research green, now dedicated to Otto Schmeisser, has two USGA projects under way as well as fertilizer trials which will give us beneficial information. Thanks to Kevin Downing, the committee, Marcus Prevatte, and all members who made this research green a reality.

During this year we have seen the start of the Florida Golf Council. Already they are lobbying for us against the proposed water-use tax. Fellow superintendents, I cannot stress enough how important this Council can be for all in the golf industry and I urge you to support the Florida Golf Council. Hopefully, Tim Hiers will have the time and energy to stay on this Council.

If this has been a successful year, it is because of the cooperation I received from the membership who put in the extra time to make it one. Thank you.



Ray Hansen FGCSA President

DESIGNED FOR OVERSEEDING WINTER GREENS

TRANSITION MADE EASY

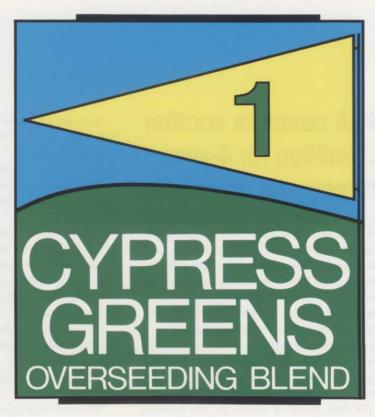
We've taken Cypress®
Poa trivialis, the darkest commercially available Poa trivialis and blended it with Creeping Bentgrass and Streaker Redtop Bentgrass to create the finest winter overseeding blend...
Cypress Greens®

Each variety in Cypress Greens® has been chosen to take advantage of their enhanced genetic characteristics and a natural growth cycle that compliments the dormancy period of your Bermudagrass greens. Cypress Greens® Overseeding Blend will provide the smoothest fall and spring transition you have ever experienced.

☐ Cypress® Poa trivialis establishes fast and can be cut close immediately. As your Bermudagrass goes dormant, Celpril coated Cypress® will provide a dark green turf with no interruption in play. You won't have to raise mowing heights or stop play to let the grass become established.

☐ Cypress® Poa trivialis performs well before the Bentgrass becomes fully established in mid winter...to provide the smoothest putting surface available.

☐ As the weather turns hot in the spring Cypress Greens® Overseeding Blend will die out naturally as your Bermudagrass begins to



grow. Cypress Greens® will not choke out your Bermudagrass in the spring as some heat tolerant perennial ryegrasses do.

In addition to dark green color and fine texture, all varieties in Cypress Greens® Overseeding Blend are cold and shade tolerant and perform well on damp soils. Each variety will prosper with close mowing.

This winter, overseed your Bermudagrass with Cypress Greens® and keep your greens in prime uninterrupted playing condition all season long ... Your golfers won't notice the transition.

COMPONENTS IN CYPRESS GREENS

Poa trivialis

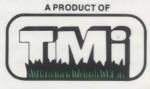
Cypress® or Sabre 50-70% *

Creeping Bentgrass

Seaside, Penneagle Pennlinks, Penncross 10-25% *

Streaker Redtop Bentgrass 10-25% *

* Formulation varies according to preference. Celpril Coated for fast establishment.



Turi Merchanis

33390 Tangent Loop • Tangent, OR 97389 • (503) 926-8649 Fax: 503-926-4435 • Outside Oregon: 800-421-1735

SEEDING RATES

of cool-season turf grasses overseeded on Bermudagrass greens

Seeding Rate (lbs./1000
Variety Seeds/lb. 1000 sq. ft.

Cypress®
Poa trivialis 2 million 10

Cypress Greens®
Overseeding Blend 7

Ryegrass

Blend 265,000 30

Streaker Redtop

Bentgrass 4.8 million 5

Creeping

Bentgrass 6 million 5

TURF NEWS

ROUNDUP

USGA commits another \$4.1 million for 4-year turf research program

The USGA has extended the turfgrass research program begun in 1982 with a \$4.1 million appropriation for projects to be conducted through 1997.

The money will fund research projects, still to be selected, in plant improvement and resource management. The former includes turfgrass breeding and biotechnology; the latter includes cultural practices, biotechnology and pest management.

A request for pre-proposals will be sent to university researchers next month and final decisions on projects to be funded will be made by the Turfgrass Research Committee in March.

In the final round of awards for the previous USGA program, University of Florida researchers at the Fort Lauderdale Research and Education Center received funding for two projects at the FGCSA's Otto Schmeisser Memorial Research Green on the FLREC campus.

Pathologist Monica Elliott is looking for a "good twin" to the evil fungus *Gaeumannomyces graminis* that causes bermudagrass decline.

"The idea is to introduce an organism with all the same characteristics as the pathogenic strain except pathogenicity (the ability to cause disease) and let it colonize the roots and protect the roots from pathogenic strains," she writes. "It's something like 'king of the root' or 'possession is nine-tenths of the law' or 'I got here first!""

Dr. John Cisar is only a few months away from beginning actual tests of pesticides on the USGA green.

Both researchers said the USGA announcement was "important news," and both expect to submit pre-proposals to continue and expand their current projects as well as undertake new ones.

"It is very important for the USGA to be a leader," says Cisar. "Most of the research money we get is from private sources."

Determining suitable levels of salinity in recycled water would be particularly appropriate for the golf industry, Cisar said, and it's a project that interests him.

"Bermudagrass decline, and the related patch diseases up North, are root rot diseases that are extremely difficult to control," says Elliott. "Even now, chemicals alone do not do the job. It will truly require a combination of culturla, chemical and biological control practices."

Both researchers, professors at the Fort Lauderdale REC, said that state budget cuts have seriously hampered their work.

"They're talking about turning off my lights," Cisar said.

"We need funds to buy the basics like petri plates, media and chemicals," said Elliott.

Among the objectives of the USGA's original 10year research program was the significant reduction of water use and maintenance costs by breeding new grasses and developing improved cultural maintenance practices.

Two improved turfgrass varieties, NuMex Sahara bermudagrass and NE 84-609 buffalograss are now available for use on golf courses and other turf areas as a result of USGA funding. Much of the background work has been accomplished with the breeding programs sponsored by the USGA and the organization expects more varieties to be released this decade.

During the next five-year phase of the program, emphasis will be placed on developing grasses and cultural maintenance practices that conserve natural resources. New grasses will be sought that require less water, pesticides and fertilizer, and that exhibit other desirable characteristics, including

- ability to survive temperature extremes
- · tolerance of non-potable water

ALSO

- · tolerance of alkaline, acid or saline soils
- reduced need for mowing and fertiliza-
- resistance to diseases, insects, nematodes and weed competition
 - · tolerance of smog and other pollutants]
 - · shade tolerance

By extending the funding of the turfgrass research program for a five-year period, the USGA hopes to ensure continued high standards for the maintenance of golf courses while addressing environmental concerns about the protection and conservation of natural resources.

GCSAA donates \$50,000 to USGA turf research fund

As the USGA was announcing research plans for the next four years at the U.S. Open in Chaska, Minn., last month, the GCSAA presented the organization with grants totaling \$50,000 to help fund research commitments made earlier for 1992.

"We are extremely pleased once again to offer our financial support to the committee," said Stephen Cadenelli, CGCS, GC-SAA president. "More important than money, however, is our pledge to take the knowledge gained from this research and disseminate it to those responsible for the management of America's golf courses."

The USGA and GCSAA have worked together on the turfgrass research program since 1983.

GCSAA official testifies on pesticide education, limits

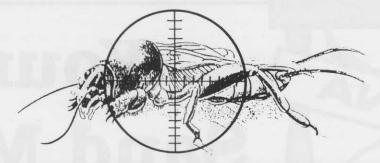
"Golf and the golf course superintendent have a very real interest in reducing pesticide use," said William R. Roberts, CGCS, in testimony before the recent Senate subcommittee hearing on toxic substances and environmental oversight. Roberts, GCSAA vice president, testified on behalf of the association.

In his testimony, Roberts highlighted GCSAA's education programs and the association's stance on posting and prenotification of pesticide applications. He also reconfirmed GCSAA's "diligence in asking the hard questions and finding the right answers which will lead to a minimalization of overall pesticide inputs to our environment.

Roberts' testimony touched on GCSAA's willingness to work within the regulatory process. The subcommittee was briefed on the public education/public service announcement produced in conjunction with the EPA, "Think Before You Apply," which educates homeowners about environmentally responsible lawn care practices.

The 30- and 10-second commercials ask homeowners to "read the directions and use only the amount needed to do the job,"

An Un-Welcome Sight!



Take Aim With Sunniland Molecricket Bait



Sunniland

Regional Managers



Dennis Varady (407) 332-9078 Steve Goedereis (407) 964-9478 Wayne Carmichael (904) 272-4891 Joe Kempeneer (813) 743-2643

Post Office Box 1697, Sanford, Florida 32772-1697 Telephone (407) 322-2421 • 1-800-432-1130

when applying lawn care chemicals. Both spots list a toll-free number (800-858-7378) that viewers may call to receive more information on proper use of chemicals or alternative treatments.

Three Floridians join Society of GC Architects

Three Floridians were among seven architects elected elected to membership in the American Society of Golf Course Architects.

Michael Beebe of Orange Park was elected to regular membership while James Lipe and Andrew Raugust of North Palm Beach were named associate members.

Beebe, employed by McCumber Golf, has designed Marsh Creek in St. Augustine, The Vineyards in Naples, and Edmonton Petroleum Club in Alberta, Canada.

Lipe, a senior designer with Jack Nicklau Golf Services, includes Melrose Golf Club on Daufuski Island, S.C.; St. Mellion GC, Cornwall, England; and Pinehurst (N.C.) National GC among his credits.

Raugust, an associate at Golden Bear International, is credited with courses in California and Hawaii as well as Canada, France and Finland.

Also elected to regular membership were Michael Gleason of Pinehurst, N.C.; David Moote, Brampton, Ontario, Canada; and Gregory Muirhead, Montclair, N.J. Thomas Johnson of Braselton, Ga., is a new associate member.

Noting the international work of the new members, newly elected ASGCA President Tom Clark sees continued growth of the golf course construction industry.

"The demand in the Pacific Rim is so strong that many golfers fly to other countries, even as far as the U.S., to play," said Clark, a partner in Ault, Clark & Associates. "This strong demand, plus locally available financing, suggests the Asian arena will promote new construction for the next few years.

"Spain and other European countries are developing courses almost as quickly as the Asians," said the veteran architect.

Many overseas projects are managed by American architects, he noted.

In addition to building courses in their own countries, foreign investors, including the Asians, Arabs and Swiss, are providing financial backing for many domestic projects.

Many overseas groups have invested in firms that finance, own and operate golf courses for municipalities and developers, paying a monthly fee for the privilege. These organizations are gaining popularity, according to Clark, because they offer the advantage of financing up front.

Clark sees more courses being integrated in commercial spaces such as industrial parks.

"To build an industrial complex, the developer has to perform the same environmental and wetlands research done for a golf course," he said. "Commercial developers know a course makes a property much more attractive to potential clients... so why not put a nice greenbelt around the site?"



Your Sand Man

Choker Sand • Greens Mix • Trap Sand • Bunker Sand • Rock • Dolomite • Hi-Cal

E. R. JAHNA INDUSTRIES, Inc.

Lake Wales, FL 33859-0840 • (813) 676-9431

Golf eligible for Olympic Games in year 2000

The International Olympic Committee has recognized the World Amateur Golf Council, which comprises the national governing bodies of golf in 66 countries, as the sole international federation for golf, making it possible for golf to become part of the Olympic Games.

According to IOC rules, the earliest golf could be included in the games would be the year 2000, for which a site has not yet been selected. The 1996 Olympic Games are scheduled for Atlanta.

Joint chairmen of the WAGC are Gordon B.B. Jeffrey and C. Grant Spaeth, respectively the chairman of the General Committee of the Royal and Ancient Golf Club of St. Andrews, Scotland, and the president of the USGA.

The WAGC shares a telephone number and mailing address in Far Hills, N.J. with the USGA.

Golf had been part of two Olympiads in this century — Paris in 1900 and ST. Louis in 1904.

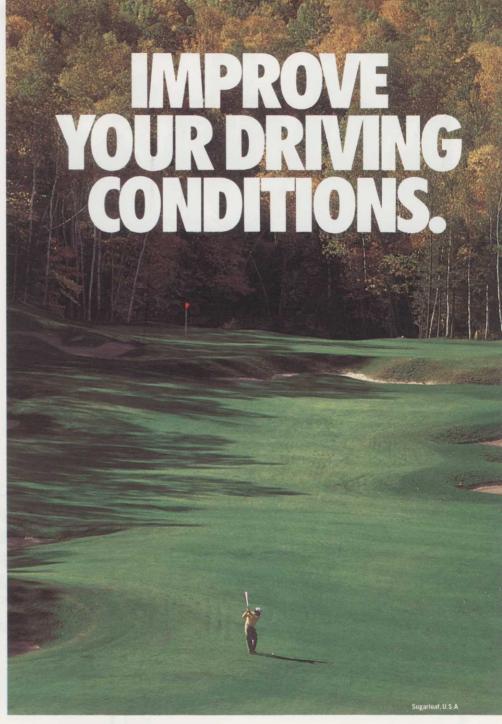
The WAGC, which was founded in 1958 to conduct international championships for men and women every other year, decided to pursue recognition by the IOC in response to the wishes of many of its member federations.

If the IOC places golf on the program of future games, the WAGC will determine the format of the competition and the rules of eligiblity of individual golfers under IOC rules. The WAGC will determine, for example, whether the competition will be limited to amateurs.

Ross Award winner warns against standardization, unqualified 'architects'

Golf course developers should be leery of inexperienced individuals trying to pass themselves off as designers, according to Michael Bonallack, secretary of the Royal and Ancient Golf Club of St. Andrews and 1991 recipient of the Donald Ross Award from the American Society of Golf Course Architects.

The award honors an individual for contribution to the growth, understanding and



ORTHENE® Turf, Tree & Ornamental Spray keeps pests out of your club.

Stop pests from playing a round on your course with ORTHENE Turf, Tree & Ornamental Spray. One treatment provides a broad spectrum of protection for turf as well as a wide variety of trees and ornamentals.

ORTHENE kills quickly on contact, then by systemic action. So you'll keep hard-to-kill pests like mole crickets, armyworms and leafhoppers under control. ORTHENE supplies longlasting residual action against other insects including tent caterpillars, aphids and thrips.

ORTHENE Turf, Tree & Ornamental Spray. It's more than enough to drive unwanted pests right off your course.

ORTHENE® Turf, Tree & Ornamental Spray

Avoid accidents. For safety, read the entire label including precautions. Use all chemicals only as directed. Copyright & 1990 Valent U.S.A. Corporation. All rights reserved. ORTHENE is a registered trademark of Chevron Chemical Co.





Michael F. Bonallack, center, secretary of the Royal and Ancient Golf Club at St. Andrews, accepts the 1991 Donald Ross Award presented by the American Society of Golf Course Architects. From left, ASGCA Vice President Tom Clark, Secretary Art Hills, President Dan Maples and Treasurer Jerry Matthews.

public awareness of the importance of golf course architecture to the game of golf.

"Many people have set themselves up as golf course architects without any form of qualification, apart from having been good golfers," said Bonallack in his acceptance speech in Broughton Park, England, at the Society's annual meeting earlier this year.

"That is similar to calling yourself a building architect because you are a skilled bricklayer or carpenter."

Bonallack, one of Britain's all-time great amateur golfers, shared his ideas on the ingredients of a good golf course.

"First, courses should be scenically and naturally beautiful," he said. "Second, courses should not require unusually long tee shots or penalize non-experts with hazards."

The award winner also said the bestdesigned courses make the player think.

"Half the fun of playing a classic course for the first time is determining what the architect was trying to make you do on a

CHEMICAL CO. INC.

P.O. BOX 18101
TAMPA, FL 33679

CALL COLLECT:
813-839-3363

STUART COHEN
EAST FLA.

WANDS • BELLY AND SULVEY OF THE BEAUTY $_{G}$ REEN ullet PENETROL ullet KICK IN THE GRASS ullet TURF IRON ullet SUPER WET ullet EV R GREEN

\(\mathbb{N} \) WATER PENN • GREEN MASTER • SCRAM \\

HERE'S THE MOST DEPENDABLE, TROUBLE FREE DRINKING FOUNTAIN YOU'LL EVER OWN! Tamper Proof Drinking Fountain Cold water without electricity! · Heavy gauge, solid steel construction Survives hard freezes Easy to install and maintain Choice of models Requires our and colors special tool to · Designed to save open fountain you money (included with Write or call for fountain) FREE information: Options: Jug filler Hose bib MOST DEPENDABLE Valve Box **FOUNTAINS** 4697 Winchester, Memphis, TN 38118 • Phone 901-794-4072 • Fax 901-794-427

specific hole and what snares he laid for those who do not think," he said.

Bonallack suggested that fairway bunkers should be used sparingly and strategically placed as close as possible to the perfect line of play, so that by just missing a bunker, the golfer is left with the ideal second shot.

The growing concern with standardization of courses threatens to take the uniqueness and challenge out of a hole, according to Bonallack.

"All greens do not have to be the same speed and all fairways the same width and cut to the same length," he said. "And the rough does not have to be uniformly graded."

Bonallack called on golf's governing bodies to promote individuality in golf course design and construction.

"The distinctiveness of holes and courses is part of what makes golf great," he added. "Unlike other sports' playing grounds, every golf course is different and has its own special attractions which can leave a lasting image on the mind."

USGA intern program to honor P.J. Boatwright

The USGA Regional Internship Program will be perpetuated in memorial tribute to P.U. Boatwright, Jr., in honor of the significant contributions made to golf by the late USGA Executive Director of Rules and Competitions.

The program to assist state and regional golf associations hire interns to help conduct operations benefiting junior golf, public golf and tournament administration was inaugurated this year as a test.

"The introduction of minorities to golf administration and management also remains a prime concern of this program," says the USGA news release.

Requests for 1992 internship grants must come from a state or regional golf association that functions as a non-profit service organization. Students may not apply directly to the USGA.

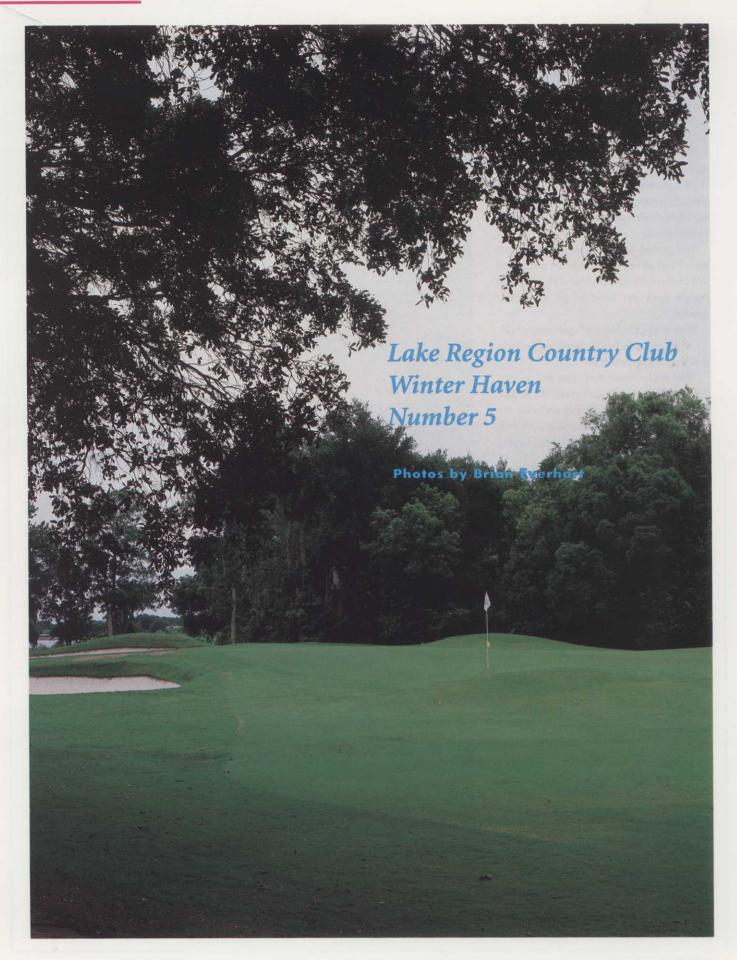
All requests must be made in writing. Donald Spencer, director of the USGA Foundation, is coordinating the program.

Florida Golf Courses in Planning Stage

		<u> </u>	
Course	Location	Туре	Architect
Bonita Fairways	Bonita Springs	Private	Gordon Lewis
Royal Tee CC	Cape Coral	Daily Fee	Gordon Lewis
Fairway Oaks	Clermont	Daily Fee	N/A
Sabal Hamnmocks LPGA HQ GC	Cocoa Daytona Beach	Daily Fee Muni	Clifton-Ezell Rees Jones
Crystal Lake CC	Deland Dedcii	Private	Lloyd Clifton
Polo Club West	Delray Beach	Private	Karl Litten
Polo Trace East	Delray Beach	Private	Karl Litten
Riverwood	El Jobean	Daily Fee	Gene Bates
Forest CC	Fort Myers	Private	Gene Bates
Westwood GC	Fort Myers	Muni	N/A
Fort Walton Bch Muni	Fort Walton Beach Goldenrod	Muni Private	David Smith Ward Northrup
Monterey Pine Oaks CC	Haines city	Private	Joe Lee
Oak Tree Sports Club	Hawthorne	Private	Ward Northrup
Hampton Hills GC	Hernando	Daily Fee	Marvin Armstrong
Citrus Hills II	Hernando ,	Private	Palmer/Seay
Southern Woods CC	Homosassa	Private	Hale Irwin
Sugarmill Woods GC	Homosassa	Daily Fee	Tom Fazio
Sugarmill Woods GC	Homosassa	Daily Fee	Jack Nicklaus
Crossings @ Fleming Isl Julington Creek	Jacksonville Jacksonville	Daily Fee Daily Fee	Clyde Johnston Robert Walker
Glen Kernan	Jacksonville	Private	Jack Nicklaus
Bear's Club	Jupiter	Private	Jack Nicklaus
Lucas Lakes	Kissimmee	Daily Fee	Lloyd Clifton
Lake Village	Lake Wales	Daily Fee	Gordon Lewis
River Ranch Resort	Lake Wales	Daily Fee	Ron Garl
Imperialakes	Lakeland	Private	Ron Garl
Highlands G&CC	Lakeland Lakeland	Daily Fee Daily Fee	Ron Garl Ron Garl
Huntington Hills Scandinavian GC	Lakeland	Daily Fee	Ron Garl
Loxahatchee Pines	Loxahatchee	Daily Fee	N/A
Aquarina	Melbourne	Private	Charles Ankrom
Washington Club	Melbourne	Private	P.B. Dye
Old Cutler Bay	Miami	Private	Jack Nicklaus
Cougar Ridge	Mims	Daily Fee	Elder/Madary
Casa Del Sol	Naples	Private Daily Fee	Gordon Lewis Trevino/Graves
Lely Mustang Livingston Road CC	Naples Naples	Private	Jack Nicklaus
Naples Golf Estates	Naples	Private	Gordon Lewis
Sable Bay Resort	Naples	Daily Fee/Private	N/A
Shamrock G&CC	Naples	Private	Ward Northrup
Southampton	Naples	Private	Gordon Lewis
Bluewater Bay Creek	Niceville	Daily Fee	Jerry Pate
Del Vera World Golf & Tennis	North Fort Myers Osceola County	Daily Fee Daily Fee	Ron Garl N/A
Trinity Communities	Pasco County	Daily Fee	Denis Griffiths
New River Project	Pasco County	Daily Fee	Mark McCumber
SilverLakes	Pembroke Pines	Private	Dick Nugent
Ft Lauderdale CC South		Private	Charles Ankrom
Riverwood CC	Port Charlotte	Private	Gene Bates
Port Orange Muni Fairway Woodlands	Port Orange Punta Gorda	Muni Private	Arthur Hills Gordon Lewis
Seminole Lakes	Punta Gorda	Daily Fee	Ron Garl
Barefoot Bay GC	Sebastian	Daily Fee	Clifton/Ezell
Sun 'n Lake	Sebring	Private	Charles Ankrom
Silverthorn	Spring Hill	Private	Hoe Lee
Timber Pines	Spring Hill	Private	Ron Garl
Fountains	St. Augustine	Private Deily Fee	Gary Player
Armada Bay Green Point	St. George Island St. George Island	Daily Fee Daily Fee	Gordon Lewis Clifton/Ezell
Sunset CC	St. Petersburg	Private	Ron Garl
Palm Tree	Stuart	Private	Ron Garl
Summerfield	Stuart	Muni	N/A
Retired Officers Exec	Sun City	Private	Clifton/Ezell
Sun City North	Sun City	Private	Sun City Golf Dev
Sun City South #2	Sun City	Private	Sun City Golf Dev
SummerBrooke Sandridge GC	Tallahassee Vero Beach	Daily Fee Muni	Dean Refram Ron Garl
Royal Palm Beach Vil	W. Palm Beach	Private	Karl Litten
City Links	W. Palm Beach	Muni	Gary Player
Glen Muir	Windermere	Private	Desmond Muirhead

Source: National Golf Foundation Golf Course Development Quarterly, Summer 1991

JULY/AUGUST 1991



THE FLORIDA GREEN



Number 16 shows tall pines.

Lake Region Yacht & CC BY PHILIP PETTUS

all pines, a scenic lake, wildlife wandering to and from the surrounding woods — they all contribute to the natural tranquility of Lake Region Yacht and Country Club, near Winter

Haven

No houses, no interstate highways in the horizon, no businesses, no street sounds. Except for the club's buildings and facilities, there's just flora and fauna and a peaceful lake surrounding you.

"This country club is like country clubs were meant to be in the beginning, a place to get away from the city," said Lake Region Golf Course Superintendent R. Alan Puckett.

"There are no reminders of the city as you walk around the course," he said. "I've seen foxes, alligators, otters, bobcats, cranes, herons, eagles, hawks and owls," Puckett said. He said that when someone comes out for the first time, most often as a guest, "they usually have an experience they remember."

A private club in Central Florida that dates back to 1924, the LRY&CC boasts a total of 960 members, including 550 golfing families. The 83

Picturesque country club enters the computer era

people on the waiting list can expect to wait up to five years to join, he said.

At one time, sailing and regattas were a part of the club's activities, hence the word "Yacht" in the name. Presently sailing is not a major activity and the club is focused on golf, tennis and swimming as major activities. But the club president is still called the Commodore.

The 200-acre stand has about 110 acres of turf, Puckett said. Overseeing a crew of 17, he is responsible for all the "growing" assets of the club. In addition, Puckett and his crew do just about anything that requires manpower.

"If they (other departments) have something to move, and no one else is available, then we're the ones they call. That's pretty normal for private clubs," he said.

"If there's a ball to be picked up and carried, then we do it."

While engaged in summer maintenance projects, such as deep-tine aerification to alleviate soil compaction, Puckett said a major upgrade is taking place with the irrigation system. Lake Region is a test site for a Network LTC irrigation system that will have the first-ever computer-controlled loop system by Toro.

"This will be a state-of-art system," Puckett said. "The new wave of golf course management is going to computerized irrigation controllers," he said.

Toro has another very extensive and sophisticated system but the one being tested at Lake Region is a simpler version that requires a PC computer. It will operate Lake Region's older electrical irrigation system (rather than the newer type of hydrau-



The 16th hole, alternate perspective.

lic systems).

Puckett said Toro selected Lake Region because it had the electrical system and because the area is prone to a high incidence of lightning. These circumstances will give a stern test for reliability and durability. The irrigation end was installed in April and the central controller is scheduled to arrive in August. It will control all irrigation for the entire golf course from Puckett's office.

"They gave it to us and installed it and will maintain it," Puckett said. In exchange, Lake Region will send Toro monthly reports on the weather and system use which Toro will use in future product development and design.

Thus, this "old" picturesque country club enters the computerized maintenance era.

Originally established in the "old style" (meaning "pretty flat"), Puckett said the course had undertaken two major projects in the last eight years.

In 1983, the back nine was reconstructed with undulations and elevations, giving the course more challenge. In 1987, the same type of redesign by architect Dean Refram was done to the front nine and the course took on a more contemporary and challenging character.



The greens are Tifdwarf while Tifton 419 bermudagrass is used on the tees, fairways and roughs.

With such a rich trove of nature, keeping both the club members and the wildlife protected are high-priority considerations.

"We are always concerned with giving proper notification of chemical use and spraying schedules through the pro shop," Puckett said.

Puckett, a relatively young superintendent at 31, has been the superintendent at LRY&CC for 15 months, coming there from nearby Grenelefe Resort. This is his first superintendent's job, but he believes he has gotten valuable experience in a variety of jobs since he graduated from Lake City Community College's golf course operations curriculum with an Associate of Science in 1981.

Previously he has worked at World Of Palm Aire in Pompano Beach where he was irrigation technician for all of its five courses, at Walden Lake Country Club near Plant City where he was assistant superintendent, and at Greenlefe near Haines City I have fun doing this job every day and I enjoy the feeling of achievement at the end of day when I see what's been accomplished.

R. Alan Puckett

Golf Course Superintendent Lake Region Yacht & Country Cub



Age: 31

Education: Lake City Community College, A.A. in Golf course operations. **Professional Involvement:** Ridge Golf Course Superintendent's Association, the Florida Golf Course Superintendents Association, the Florida Turf Grass Association and the Golf Course Superintendents Association of America. As external vice president for the Ridge association, he is a board member of the FGCSA.

Goal: Getting his GCSAA certification.

Previous employment: World Of Palm Aire (Pompano Beach), Walden Lake Country Club (Plant City), Greenlefe (Haines City).

CLASSIC GREENS, INC.

Golf Course Grassing
Golf Course Renovations
Athletic Fields

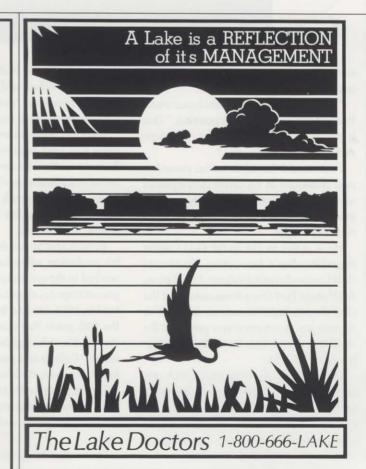
Specializing in genetically pure bermudagrasses

Classic Dwarf Tifway (T-419)

(904) 332-6318 (O)

(904) 538-0631 (M)

Phil Horn Route 2, Box 412-X Newberry, FL 32669





Lake Region Number 11

where he was superintendent of the West course.

"To have this job is a dream come true," Puckett said off his current position. "This is definitely one of the nicest and more exclusive clubs in the area."

Puckett said that while he has moved to new challenges in his career development — changing jobs about every two to three years — he wants to stay at LRY&CC considerably longer.

He is active in the Ridge Golf Course Superintendent's Association, the Florida Golf Course Superintendents Association, the Florida Turf Grass Association and the Golf Course Superintendents Association of America. As external vice president for the Ridge association, he is a board member of the FGCSA.

He has a goal of getting his GCSAA certification. With a minimum of five years tenure as a superintendent required to qualify for certification, Puckett said he expects the next four years will teach him a lot.

As one who likes to build "family" into his work force Puckett said his crew has a "casual, comfortable, working realtionship with quality work as our goal."

Assistant Superintendent Alan Autry helps him lead workers that range in age from 18 to 71. The crew works hard and maintains a professional, friendly and courteous relationship with the club members but can also have fun while working together, Puckett said.

Puckett said he was first enchanted with his profession when he was only 14 and worked in the cart shop and began cutting grass at ImperiaLakes Country Club in Lakeland in 1974. He told his parents while in the 10th grade that this was the career he wanted. He set his sights on Lake City Community College and got there after finishing high school. He hasn't regretted it yet.

He is accustomed to 60-hour work weeks — or more — and cares about doing quality work that reflects well on himself and his crew.

"I have fun doing this job every day and

Puckett said he was first enchanted with his profession when he was only 14 and worked in the cart shop and began cutting grass at ImperiaLakes Country Club in Lakeland in 1974.

I enjoy the feeling of achievement at the end of day when I see what's been accomplished."





Adam Yurigan

Photo by Kit Broadshow

BY KIT BRADSHAW

dam Yurigan has been teaching all of his life.
Through personal example and through years of

helping young trainees through the ranks, the winner of the FGCSA's President's Award for Lifetime Service has taught golf course superintendents the value of honesty, hard work and professionalism.

A former caddie who turned professional as a young man and garnered several open championships, Yurigan has been both a golf professional and a golf course superintendent during his career.

"When I got out of the Army in 1945, my wife and I moved from Pennsylvania to Iowa, where I helped to renovate golf courses that had deteriorated during the war years," Yurigan says. "After working with my father-in-law in the auto business for a short time, I decided to return to golf and went to work at the Geneva CC as a pro/superintendent. In those days, if you made \$1,000 a month, it was great pay. The golf courses couldn't afford to have both a golf professional and a superintendent, so I did both jobs. It's a different era now," he says.

It was at Geneva, then later at the All-Vet

Center, Mason City CC and finally at Echo Valley in Des Moines that Yurigan established a program for young superin-

tendent-trainees.

"I had at least three key people on the crew, and I supplemented the crew with high school kids that wanted to get into the business," Yurigan says. "They were able to make money for the summer and they got experience. If they worked hard, they always had a job every summer, as long as they wanted it."

You'd feel fortunate to cross paths with Adam

Yurigan stayed at Mason City CC for several years, upgrading the course by installing the first water system in the state and by working to establish the course's reputation. He later went to Echo Valley CC in Des Moines.

Through a friend, Yurigan was hired as the golf course superintendent at Rio Pinar in Orlando, at that time the site of the PGA Tour's Citrus Open.

"I had a good resume and had a lot of good recommendations - something I think every golf course superintendent should have," Yurigan says.

"One of the things I brought to Rio Pinar was my expertise in bentgrass. In the North, we had bentgrass greens and bluegrass fairways. I was the first person, to my knowledge, to plant bentgrass on Florida greens.

Now all the highclass courses in Florida have bentgrass overseeding in the winter," he says.

It was during this time that Yurigan helped found the Central Florida chapter of the FGCSA and served as its first president. "At that time," he says, "Central Florida was a one-horse area. Look at it now!"

Yurigan stayed at Rio Pinar, despite some difficult times with budget and equipment, but in the early 1970s, he heard there might be an opening at John's Island.

"I called Mr. (Lwvdd) Ecclestone and asked him about the possibility of working at John's Island, and he hired me shortly after interviewing me. I don't think people

really knew Mr. Ecclestone. He was one of the finest men I've ever worked with. His door was open to me to discuss the course, and he understood that it was important that the golf course superintendent have control of what goes on at that course," Yurigan says.

With Ecclestone's encouragement, Yurigan started the Treasure Coast chapter of the FGCSA and served as that chapter's first president.

dent at Card Sound GC on Key Largo, remembers his days as Yurigan's assistant at John's Island.

"When Adam took over, it was raw," he recalls. "They were using effluent on the courses and, as a result, the ponds were so clogged the birds could walk on them. But the time we left, you couldn't tell the ponds that held the effluent from the other ponds They had cut our staff, and I was out there, dragging pumps around the course, working until six or seven at night. And there was Adam, manning machinery, right with us, trying to help get the course ready," Van Valkenburg says.

"I feel fortunate to have crossed paths with Adam in my career," he says. "I would not be where I am today if I hadn't worked

> for him. He is a real teacher. He makes the assistant superintendents learn everything they can about the course. There isn't a job we didn't learn. He let us feel the pressure of the job, he made us lead our crew and coordinate the work and made us tie these jobs together so that there was a workable plan in maintaining that golf course. We knew he was ultimately responsible for the course, but he guided us, and made us think, and learn and understand everything that was necessary to maintain a golf course. I think sometimes superintendents keep their assistants in the dark. Adam didn't. And because of this, all of us were confident that we knew how to run a course.

"I have never met

a man who was more honest and professional and more ethical than Adam Yurigan," Van Valkenburg says. "Even though he might rub people the wrong way sometimes, he still maintained his integrity. I miss working with him."

Yurigan brought the expertise gained at John's Island to the new course at Hawk's Nest in Vero Beach, serving as an interim superintendent while the course was being constructed. By this time he was in his

Adam Yurigan

Age: 74 Education:

Studied two years at the University of Pittsburgh; additional studies in turfgrass management at Purdue University.

Current Position:

Retired; does some consulting work in turf management and golf course management.

Previous Employment:

Former golf course superintendent at Vero Beach CC, Hawk's Nest, John's Island, Rio Pinar, all in Florida and Mason City and Echo Valley, in Iowa.

Other Employment:

U.S. Army, golf professional.

Professional:

Started both the Central and Treasure Coast chapters of the FGCSA, and served as the first president of each.

Personal:

Married to Elizabeth since 1943. Children: Nancy owns car dealership with her husband in Mason City, Iowa; Pat, of Orlando, is a registered nurse working with lawyers on malpractice investigations; Lori, manager of special marketing at Disney World in Orlando; Mike, assistant golf professional at Isleworth CC in Orlando.

"When Hurricane David came through,

it took us three days just to clear things up

to get around and see the damage - 100-

year-old oak trees were uprooted all over

the course. It took us 10 days to clear the

course so it could be put back after the

inches of rain and we were trying to get the

course ready for the Ladies Western Open.

"I can remember one month we had 20

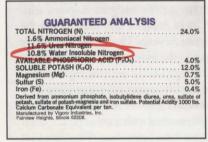
on the property.

hurricane hit.









Scott's ProTurf

Lebanon Country Club

Par Ex

Down in the analysis area on every fertilizer bag, you'll find the "fine print" that tells you what the big print doesn't. Read all of it. Carefully. But most importantly, look at the percentage of Water Insoluble Nitrogen.

Water Insoluble Nitrogen (WIN)... the key to superior turf.

The higher the WIN percentage, the longer your turf will remain green. And the less often you will have to fertilize. That's because WIN is

the percentage of total Nitrogen that is truly slow release. Freeing small amounts of Nitrogen each time it's touched by water (Par Ex® with IBDU®) or activated by temperature or bacterial action (competitive products).

No competitor can deliver as much usable WIN as Par Ex.

Only Par Ex contains IBDU—a unique Water Insoluble Nitrogen source that is 100% available to your turf in a single growing season. Consider that urea formaldehyde products (bacteria and temperature released) contain about one third of their WIN in the form of plastic polymers. Its long-term Nitrogen

release is so slow, it's almost useless, and will most likely occur during the hottest periods, just when you don't want it.

For Sulfur Coated Urea (SCU), research has shown that by the time it is spread, about 50% is immediately soluble, effectively doubling your cost of controlled-release Nitrogen and cutting the benefit in half!

Be sure to read your bag.

If the percentage of Water Insoluble Nitrogen isn't listed, there isn't any slow-release Nitrogen. If it is listed, chances are it won't be as high as the WIN percentage in Par Ex. Even if it is, we guarantee you that 100% of what we list as WIN is available to your turf every growing season. That means for every six months of growing, you'll receive an additional 46-53% more usable WIN than our competitors can deliver.

So start building your WIN percentage today. Talk to your local Par Ex Representative or call 813/294-2567. And get all the WIN you've been reading about.





sixties and he decided to look at doing more consulting and less hands-on golf-course maintenance.

Vero Beach CC requested his services, and again he worked with the club until a superintendent could be found. "I told them they needed time and a young man to bring their course around," Yurigan says. "I established the maintenance program for them, and was able to increase the budget and bring in new machinery to get the course in better shape. Now Roger Welker is in charge of the course and it is in better condition than when I first saw it."

Yurigan says he has been involved with the PGA of America and the GCSAA for more than 20 years. There have been many changes to the industry in his long career.

"Although I never went for my certification as a golf course superintendent — I was too old, I felt — I've told all the young men who worked with me that certification would get them in the door. There are a lot of fine superintendents who don't have certification and are very qualified, but I

think it's a different game now and it's much harder on superintendents than it was when I was younger.

"Members expect you to maintain the course like you do when you have a tournament. You have to work with a lot of different professionals — architects, managers, consultants — and still remind them that you are a professional who knows the course and who is the one that is ultimately responsible for the condition of that course. You need larger budgets and more people to maintain a course and all the equipment in good condition.

"I think that more than anything, a golf course superintendent needs to be truthful with people," Yurigan says. "You have to realize that sometimes it will be difficult and you'll have to fight to get things done right. But if you are good, you don't have to worry about getting another job. When golf course superintendents take a stand on the creation and maintenance of a course and stop worrying about someone else taking their job, they'll be better off."

Adam Walsh Child Resource Center Benefit Tournament to be played Sept. 14

The South Florida GCSA invites your participation in the Seventh Annual Adam Walsh Child Resource Center Benefit Golf Tournament. The tournament will take place Saturday, Sept. 14, at the Clubs of Inverrary, Lauderhill, Fl.

Enjoy a day of golf, food, beverages and as always spectacular prizes, while supporting an organization dedicated to protecting our greatest asset, our children.

Entry forms will be mailed to members of the Everglades, Palm Beach and South Florida Chapters. Additional information may be obtained by contacting Bob Klitz at 305-733-7551 or Bill Entwhistle, Jr. at 305-435-6169. We look forward to seeing our friends from past tournaments and making new ones at this year's tournament.

- David Lottes



RSEE

Premium Kentucky Bluegrasses



Kentucky · Bluegrass

A medium bright green, fine textured grass that greens up early, keeps color late into fall and grows well in moderate shade.



Kentucky · Bluegrass

A moderately dark green variety with early spring green up and excellent density and wear tolerance, even maintained at a shorter cutting height.

Premium Turf-Type Perennial Ryegrasses



Excellent dark green color, fine leaves, superior density, high endophyte content, insect and disease resistance distinguish this variety.



A dark green, dense variety with fine leaf texture, dwarf growth habit and high endophyte content. Tolerant of heat, drought, and low mowing.



A rich dark green variety with high endophyte to fend off insects, and good disease resistance.



TURF-TYPE PERENNIAL RYEGRASS and medium density.

An early-maturing, low-growing turf with bright green color, medium fine texture

Premium Turf-Type Tall Fescues



A moderately lowgrowing turf-type tall fescue with rich, dark green color, moderate leaf texture, and reduced growth rate.



A moderately lowgrowing turf-type tall fescue with rich, dark green color, good density, and good adapt ability.

Premium Dwarf Turf-Type Tall Fescues



ELITE DWARF TURF-TYPE TALL FESCUE

A lower growing, darker green tall fescue with a slower leaf extension rate and a shorter mature plant height.



Darker green color, good shade tolerance. and dense, fine textured turf that requires less mowing.

Premium Creeping Red Fescue

Creeping Red Fescue

A rich, blue-green variety with the ability to form a dense fine turf for a creeping fescue.

Premium Intermediate Ryegrass



Excellent for over seeding dormant warmseason grasses and for temporary soil stabilization. This variety exhibits dark green color, moderate leaf texture and reduced growth rate.

©1991 LESCO, Inc.

Turf professionals have come to know LESCO as The Seed Pro, because LESCO offers more varieties developed exclusively for professionals than any other seed company.

LESCO has more than 12 top quality varieties for turf pros to choose from. Each can be purchased separately or custom blended to your exacting specifications. So whatever your need, Your Seed Pro has the seed!

Call your sales representative, visit your local LESCO Service Center or call toll free (800) 321-5325

LESCO — Turfgrass seed exclusively for professionals



ESTABLISHED 1962

20005 Lake Road Rocky River, Ohio 44116

Fertilizers, Seed, Control Products, Equipment, Parts

Poa Annua Classic bothered a bit by rain; committee considers moving to earlier date

The 17th Annual Poa Annua Classic weekend was usual in combining business, education, fun and relaxation, but unusual in having to contend with an uncopporative Mother Nature.

Unseasonable morning rain plagued the Poa Annua Classic for the second consecutive year. A dejected tournament committee had to to call off the tournament after nine holes due to the wet conditions, and a soggy bunch of golfers was reluctant to leave the damp but beautiful Flamingo Island Club in its debut as the Poa Annua Classic site.

Superintendent Jim Larner, had the course well prepared, but the turf could not withstand the accumulation of several days' worth of rain and remain playable.

Everglades president, Buddy Carmouche, announced that the Poa Annua Committee was considering moving the Classic to the first weekend in May to avoid the beginning of the rainy season.

On Saturday afternoon, the G. C. Horn Memorial Research Tournament held at the Naples Beach Club was also delayed by



Seminar speakers at the 17th annual Poa Annua Classic weekend were (I-r), front row, Steve Pearson, Paul Crawford, Walt McMahon, Lou Conzelmann, Cary Lewis and John Gallagher; back row, Jim Montgomery, Robert Drake, Mark Flock and Dale Kuehner.

rain and lightning, but did complete all 18

Although the golf competitions may have

been dampened by the wet weather, those in attendance were happy to see the drought-stricken West Coast receive the much needed rain.

The hard work and preparations by the host Everglades Chapter were not in vain as the cordial atmosphere and gracious hospitality brightened up the weekend. The luau banquet Saturday night combined with the steel drum band gave the weekend a distinct tropical flair.

The Education Committee scored another ace with its seminar, "The Thinking Superintendent" on Sunday morning. A wide range of current critical issues was presented to a capacity crowd of superintendents seeking Continuing Education Credits for their GCSAA certification and for their own personal and professional development.

On Saturday morning the FGCSA Board of Directors held its Spring Board Meeting to conduct the business of the association. President Ray Hansen was pleased to recognize Jeff Hayden as the representative of the Seven Rivers Chapter, the 10th and newest chapter in the state association.



Everglades Chapter Board of Directors are (I-r), Dick McCoy (Windermere CC), Roy Bates (Imperial CC), Secretary-Treasurer Ric Mohr (Palmetto Pines CC), Odell Spainhour (supplier representative, Debra Turf), Mike Mongoven (City of Fort Myers courses), External V.P. Lou Conzelmann (Fiddlesticks CC), V.P. Steve Cairdullo (The Forest CC), Past President Mark Atwood (Bears Paw CC) and President Buddy Carnouche (Hole in the Wall Golf Club).

26



Dave Oliver won the Superintendent's Division for the third consecutive year.

Poa Annua Classic Golf Tournament results:

Superintendent Division
Low Gross: 1st David Oliver,
2nd Lou Conzelmann, 3rd Paul
Bondeson, 4th Larry Livingston.
Low Net: 1st Chuck Rogers, 2nd
Gary Smither, 3rd Jay Gratton, 4th
Ray Cuzzone.

Team Championship Palm Beach Chapter-Robert Brumfield, Pat Kearney, Glenn Klauk and Jerry Redden.

Supplier Division
Low Gross: 1st Morgan Evans,
2nd Keith Longshore, 3rd Glenn
Zakany, 4th Walt Shirey
Low Net: 1st Brad Reano, 2nd
Dick Bessire, 3rd Odell Spainhour,
4th Ted Owens.

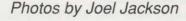


Chuck Rogers was the low net winner with a wide lead over Gary Smither.



The Palm Beach Chapter's minus-10 score took the Chapter Team Championship away from host Everglades Chapter at the Poa Annua Golf Tournament, May 20. Team members were (I-r) Jerry Redden, Glen Klauk, Pat Kearnery and Robert Brumfield.

Mark Henderson watches as Steve Cairdullo and Buddy Carouche post scores









Where golf courses are

John's Island
West Golf
Course sits on
one of the the
highest dunes of
the Indian River/
St. Lucie County
area. Unlike
other parts of
Florida, the land
is extremely well
drained.

Photos by Kit Bradshaw BY KIT BRADSHAW

Consider this equation. One golf course equals one permanent habitat preserve. A single golf course becomes a locale where endangered plant life, or even endangered wildlife can thrive.

John Fitzpatrick, executive director of the Archbold Biological Station, near Lake Placid, sees this concept as reality because it's happening at a Vero Beach development called John's Island.

John's Island West Golf Course sits on one of the the highest dunes of the Indian River/St. Lucie County area. Unlike other parts of Florida, the land is extremely well drained. This according to Fitzpatrick, makes John's Island West unique, with ties to ancient North America. He calls the property, "a spectacular example of a coastal scrub, plant and animal community unique to Florida."

He admits the property has changed. After all, there is a golf course there now. "But," he says, "the important thing is that Tom Fazio took a progressive, positive approach to golf course design. He built around the native landscape using its advantages. When you walk on the course, you are walking through what old Florida used to look like."

Tim Hiers, golf course manager at John's Island West, said that to preserve as much of the property as

possible, the construction centered around hand clearing a vast portion of the land. As a result of the careful preparation and the embellishment of wetlands, migratory and wading birds are abundant. Hiers said many other species of wildlife, such as otters and raccoons, call John's Island West home.

Fitzpatrick said the property is "one of the rarest habitats in North America. Every square meter is precious to wildlife. There is a fairly large number of endangered species at John's Island West, and it is now a permanent habitat preserve that also provides recreation and beauty... it is the best example of bridging these two goals together."

In its role as a permanent habitat preserve, John's Island West is part of the biological station's experimental program to save the endangered plant, Lakela's Mint.

"Lakela's Mint is one of the rarest plants on earth, and is native to the yellow sand 'scrub," Fitzpatrick said. "Unfortunately, most of this yellow sand area has been obliterated by construction along U.S. 1, with just a few small, struggling populations of the plant left in abandoned areas.

"We've brought more than 30 of these plants to John's Island West, hoping the course can become, in a small way, a model of how golf courses can contrib-



designed for wildlife

ute to conservation of nearly extinct species. Our goal is to establish a thriving population of Lakela's Mint, which is becoming increasingly important as potential natural insect repellent."

Many golf courses in Florida, particularly in the agricultural area of Indian River County, are built on old citrus groves. On these properties, sensitive and environmentally aware developers have an opportunity to restore the land to a more natural state.

Fred Loherer, librarian for the biological station, said when a grove is planted, "they remove all the natural vegetation, cut and burn it and then root rake it, so there's no woody plants or shrubs that remain. The drainage is important when they put in a grove, so they create extensive ditches and lower the water table. This lowers the soil and the hydrology of the area. A citrus grove is pretty much as artificial as a lawn is."

Two other golf course communities in Vero Beach, Grand Harbor and the nearly-completed Windsor, are located primarily on extinct citrus groves. Here, the goal was not to maintain the existing landscape, but to restore a portion of the land to its pre-citrus condition.

Windsor will open in November. This Robert Trent Jones Jr. course is on a former grapefruit grove. According to designer Gary Linn, "We are trying to to put the land back into better shape than it was before."

For Linn, this assignment provided two important aspects of course design.

When the grapefruit grove was created, a hammock area on this barrier island was virtually eliminated. There is a small triangular piece of hammock that remains, and the Jones design has incorporated this hammock into three of the holes.

"There was a commitment to restore the natural area here," Linn said, "and we are transplanting 60- to 70-foot live oaks, making the native dunes and putting in palm trees to recreate the areas that were denuded when they put in the grapefruit orchard. The environmentalists like it and it's pretty neat for golf use, because it gives instant maturity to the course."

Water retention and filtration are also part of the course design. Water on the property is captured in a series of large lakes, according to Linn, and then moves into the drainage ways with man-made shelves that have been planted. In this way, the plants at the water level of the lakes and along the drainage canals can filter the water before it's discharged into the Indian River.

Water is also an important part of the design of the two Grand Harbor courses, the River Club course and Water is also an important part of the design of Grand Harbor courses. About 712 acres of the original 895 were citrus groves, and 73 acres were part of a mosquito impoundment system.

Grand Harbor course.

According to Ron Andrews, golf course manager for the complex, 712 acres of the original 895 were citrus groves, and 73 acres were part of a mosquito impoundment system.

To help restore the "old" Florida look to the property, some of the wetlands were preserved, some restored, and new wetlands were created. The mosquito impoundment areas were tied back into the Indian River, and now Andrews uses openwater marsh management to control the mosquito population.

"Historically, these impoundment areas were connected to the Indian River," Andrews said.

"What we did was to open these two impoundments back to the river, remove some of the agricultural sediments and make the areas a viable piece of the Indian River again. It's a new technique, and some of the people were not real sure it would work, but the Indian River Mosquito Control



"There are a fairly large number of endangered species at John's Island West, and it is now a permanent habitat preserve that also provides recreation and beauty... it is the best example of bridging these two goals together." — John Fitzpatrick, biologist

419 SOD • 419 SPRIGS

TIFDWARF * 328 * HYDRO-MULCHING * WILDFLOWERS

DIRECT FROM HOBE SOUND, FLORIDA

South of Stuart

Certified 419 & turfgrasses grown on gassed, irrigated land for South Florida Golf Courses and Athletic Fields

DON'T LOSE SPRIGS DUE TO HAUL TIME!



South Florida Grassing, Inc.
"A Leader in the grassing industry since 1964"

Phone:

(407) 746 - 7816

(407) 546 - 4191

District says it works about as well as it did when it was impounded. They don't have to use pesticides within the saltwater marshes to control mosquitos, any more than they did when it was impounded."

The open marsh water management system uses the the tidal influences of the Indian River to penetrate all the parts of the marsh, and to insure that there is no isolated puddling that will encourage mosquito propagation. "Then, if you can get the fish there, especially in the early life cycle of the mosquito," Andrews said, "the fish will eat the very young, small mosquito larvae."

Andrews adds, however, that not every impoundment area is a candidate for this type of program.

"For one thing, it is very expensive," he said. "For another, you need some place to put the fill that comes out of the berms that were part of the impoundment areas. In addition, there is a lot of research going on right now about mosquito impoundment areas. The mosquito control districts are looking into the possibility of opening some of these impoundments part of the year. So there are a lot of things to consider concerning mosquito impoundments."

In the process of creating two golf courses at Grand Harbor, 12 acres of wetlands were filled in. Andrews said the areas filled in were not pristine, but were heavily impacted wetlands.

"And," he added, "keep in mind that the citrus grove was not native land, and there was little wildlife on that portion of the property before construction." However, as part of the permitting, 48 acres of wetlands were created to offset the in-filling.

"Basically, we rehabilitated those 73 acres of salt marsh, except for the 12 we filled, created 48 more to add to that; and rehabilitated the whole thing. In addition, we created 74 acres of freshwater wetlands. Doing the wetlands work and integrating it with the golf courses were our biggest challenges."

The River Club course was built on citrus groves, and in creating it, 28 acres of upland lakes were built. At the Grand Harbor course, the impoundments were rehabilitated and freshwater lakes were constructed. All this work has created an environment that attracts fish and birds, Andrews said.

"We filled the marshes with fiddler crab,

snook and a lot of different fish," he said. "In our testing, we've collected a very high number of other fish. If you keep track of the fish, it's a very good way to see the success of a created marsh. Also, I can go out on the course and see a number of birds, such as tri-color herons, ibis, blue herons and wood storks. And there is other wildlife here, such as frogs, snakes, river otters, raccoons and bunnies—we're bunny huggers like everyone else."

"It is expensive to preserve, rehabilitate and create wetlands," Andrews said. "We probably had something in the neighborhood of \$2 million in the saltwater mitigation, and about \$400,000 alone in plants used in the freshwater. In addition, if you take 30 percent of a lake and make it marsh, you lose 30 percent of the fill that could come from the lake. So there is a hidden cost of mitigation, because it makes you use dirt from off the property. The only people who could afford this type of project is a developer. The value, however, is that it lets people know that mitigation can be done successfully."

(305) 581-0444

SPREAD-RITE, INC.

CUSTOM SPREADING FERTILIZER • DOLOMITE • ARAGONITE

LAMAR SAPP

6001 S.W. 19th STREET PLANTATION, FL 33317 MOBILE: (407) 479-9417

BROOKSIDE LABORATORIES

- Soil testing/Analytical services
- Irrigation water testing
- Environmental testing

Providing a direct line of communication between the course manager and the lab

TOM BURROWS Turfgrass Analytical Service

•GCSAA certified
•FGCSA Past President
•1989 FGCSA Distinguished Service Award

407-692-1221

1741 San Souci St Stuart, FL 34994

Nobody ever said you had to do it all yourself.

Turf specialists today face greater responsibilities than ever before. That's why the technical and managerial assistance offered by Total Turf Services, Inc. is so valuable.

An unbiased consultant experienced in renovation, new construction, budgeting, grow-in, soil testing, fertility programming and more. Working within your guidelines to see a project through to completion. On time and on budget.

Don't do it all yourself. Call Bud White at Total Turf Services today.

Total Turf Services, Inc.

3 N. Main Street, P.O. Box 935, Watkinsville, GA 30677 Phone: (404) 769-4570 • FAX: (404) 769-8538



OUT OF GOLF COURSE LAKE MANAGEMENT.

LET US SHOW YOU HOW!

Aquatic Systems, Inc. provides:

- Algae & Aquatic Weed Control
- · Floating Fountains & Aerators
- Wetland Mitigation & Aquascaping
- State Permitting & Reporting
- · Water Testing & Lab Analysis
- · Grass Carp & Sport Fishing Stocking
- Clarification Treatments

LOCATIONS THROUGHOUT FLORIDA:

St. Petersburg • Ft. Pierce • Ft. Myers • Longwood • Miami Pompano Beach (Corporate Office)

Call 1-800-432-4302 for a free evaluation of your lake management needs.



DUDA SOD



Zellwood 904-383-6111 Cocoa 407-636-3966 Ft. Pierce 407-461-0962

Oviedo 407-365-2189 Ft. Lonesome 813-633-1447 LaBelle 813-675-0545 Clewiston 813-946-1838

A. Duda & Sons, Inc.

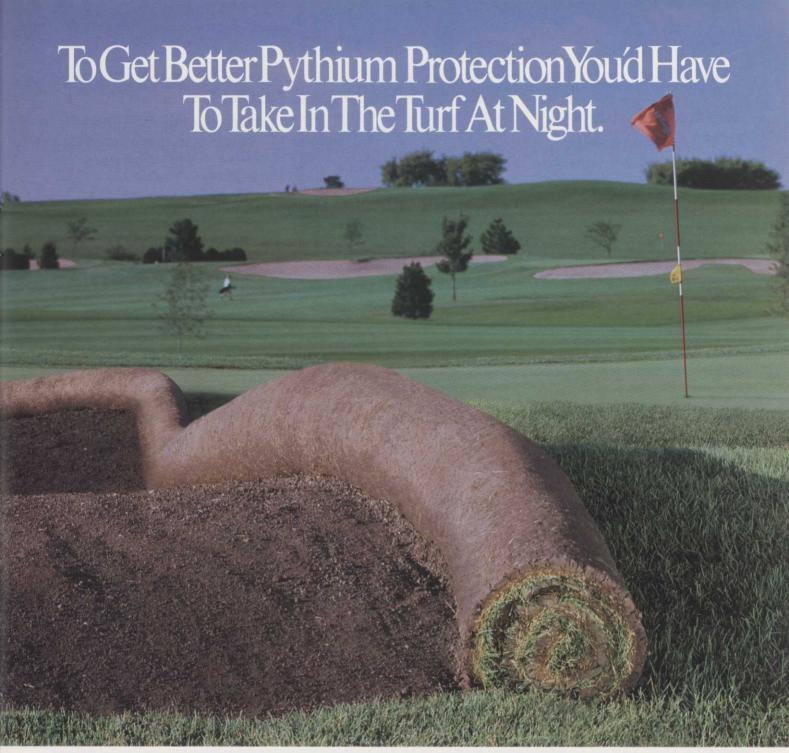
•When outright preservation of the land is not possible, then the next best scenario is to work with golf courses — courses are open space by their nature — and with residential developers, because they can put money into preserving bits of the native ecosystem.

The expense of either preserving wetlands and uplands or rehabilitating these properties is extensive, but Fitzpatrick believes that environmentally sensitive development can be valuable in the preservation or restoration of Florida's lands.

"When outright preservation of the land is not possible, then the next best scenario is to work with golf courses — courses are open space by their nature — and with residential developers, because they can put money into preserving bits of the native ecosystem," Fitzpatrick said.

"John's Island West is clearly in the vanguard because they made a special effort to protect pieces of a native system exactly as it used to be. My genuine belief is that golf courses have a real potential for being ecologically important. They are important places for environmentally-minded people who decry any human use of the land. It is possible for development and the environment to live side by side."

Andrews agrees. "Good golf course superintendents have always been environmentalists," he said. "We spend a big part of our day on the golf courses. We've got to deal with the pests of nature, but we enjoy the good side of nature just as much as the next guy and we work hard to minimize the impact the golf course has. I think that often a golf course doesn't get enough credit for the positive things it can do for the environment."



When Pythium conditions are right, you can either take in the turf or take out the best Pythium control

money can buy: CHIPCO® ALIETTE® brand fungicide. CHIPCO® ALIETTE® brand is unlike any other Pythium-prevention fungicide. Its true systemic action spreads protection throughout every blade of turfgrass, including the roots. Protection that lasts up to 21 days from a single application. Plus, the unique chemistry of CHIPCO® ALIETTE® brand actually stimulates turf's natural ability to fight off infection.

So you get two-way protection that can't be beat. Now add to that the fact that a foliar application of CHIPCO® ALIETTE® brand prevents

Phytophthora and Pythium on a wide variety of ornamental and landscape plantings, and you've also got the most versatile fungicide on the market today. So when conditions are right for Pythium, don't roll up the turf, lay down CHIPCO® ALIETTE® brand fungicide.

Chipco® Aliette®



Two from Florida win GCSAA scholarships

Two of the first 10 GCSAA Legacy Awards for outstanding scholarship have gone to Florida women.

Jennifer Jackson, daughter of Joel Jackson, CGCS, Orlando, and Melissa Marie Sohn, granddaughter of Louis Earl Trapp, Lake Placid, each have received \$1,500 stipends to further their collegiate education.

Legacy Awards, financed by GCSAA Scholarship and Research fund, are available to the children and grandchildren of active and retired GCSAA members.

Candidates must be enrolled full-time at an accredited institution of higher learning with a cumulative grade point average of at least 3.0 (on a 4.00 scale), demonstrate a broad base of interests including community involvement, volunteer activities and outside work, and complete a short essay on his or her parent's (or grandparent's) involvement with the GCSAA.

"The selection committee members were very impressed with the caliber of the candidates, particularly the essays," said Pat Jones, GCSAA director of communications. "These stipends were made solely on the basis of merit under the criteria, not on the basis of need."

The selection committee was comprised entirely of educators and collegiate administrators who had no connection to the GCSAA or the golf course management industry.

Jennifer Jackson will enter Wake Forest University near Winston-Salem, N.C. this fall as a freshman. Her father, editor of the the Florida Green and past president of the

FGCSA, is a superintendent at Walt Disney World.

Melissa Sohn has attended South Florida Community College on a part-time basis during her junior and senior year of high school and is enrolled for the fall term at



Jennifer Jackson

Troy State University in Alabama.

Thus, although she just graduated from Lake Placid High School, she'll probably carry sophomore hours into Troy State. Sohn's grandfather was superintendent at Dayton (Ohio) CC from 1935 to 1974.

Other GCSAA Legacy Award scholarship winners:

- Mary Flaherty, Berkeley Heights, N.J., daughter of Joseph R. Flaherty, CGCS.
- Amy Jo Miller, Middleton, Wis., daughter of Monroe S. Miller.
- Jennifer Jane Shermer, Folkston, Ga., granddaughter of Edwin T. Mattson.
- Vincent R. Streiff, Middleton, Ohio, son of Thomas R. Streiff III, CGCS.
- Grier Wallace, Unionville, Conn., son of Michael Wallace, CGCS.
- Ian K.Wallace, Unionville, Conn., son of Michael Wallace, CGCS.
- Ty Townsend Webb, Memphis, Tenn., son of Lee Archer Webb, CGCS.
- Laurie Ann Wilcoxen, Stillwater, Okla., daughter of Stephen N. Wilcoxen.

GCSAA forms service for international members

The GCSAA has formed a new department to develop and implement programs for international members.

Tom Akins, GCSAA director of planning, will head the department and assume the new title of director of planning and international programs.

"International requests for assistance and information have steadily increased over the last several years," Akins said. "We're excited about he opportunity to provide tools for superintendents outside the United States.

"Many countries already have established golf federations and associations that are providing quality professional development for their membership. Our desire is to work cooperatively with those associations, lending our expertise while learning from their unique methods."

Of the more than 10,800 GCSAA members, 734 live and work in 47 different countries outside the U.S.

TURFGRASS QUIZ ANSWER

A new irrigation system installed by inexperienced installers. Improper spacing did not allow water to reach adjoining sprinkler heads. Installers blamed problems on fertilizer, insects, disease and mowers. They were found liable for a bad installation and had to redo it.

LANTANA PEAT & SOIL

10570 Hagen Ranch Road Boynton Beach, Fla.

732-4116

1-800-433-5552

STERILIZED SOILS • TOP DRESSING TOP SOIL • MULCH • POTTING SOIL "Keeping Golf Courses Green"

BY KARL DANNEBERGER

Reprinted with permission from Northwestern Illinois GCSA

espite what club members might say, there's more to a quality green than speed. Here are some management tips to keep your greens looking good.

The word fast has become synonymous with success. Fast cars, fast-track careers, even fast foods are associated with the good life. Speed also is important in sports. Baseball pitchers are evaluated on how fast they throw and football players on how fast they run the 40-yard dash.

In golf, successfully managed greens are often associated with speed. However,

speed alone does not make for a good green. If a wide receiver cannot catch a football, his time in the 40-yard dash is meaningless.

The same is true in golf: the ultimate fast green would be as hard as a rock, smooth as glass and void from grass. No golfer would want to play on this surface. The terms "feel" and "touch" would be meaningless since making a putt would be a function of luck.

Clearly, green speed is important, but it's not the only component of a good putting surface.

Important elements of a good putting green are uniformity, smoothness, firmness and resiliency. The first three are associated with speed while resiliency governs the green's ability to hold golf shots.

Uniformity implies that each green putts the same. Nothing is more discouraging than putting on a fast green followed by a slow one. Uniformity is often difficult to achieve.

Variables such as location, construction, micro-environments and grass species make perfect uniformity unattainable. For example, greens may dry out at different rates or greens in the shade might putt faster due to the thinner less dense turf.

Speed alone does not make for a good green

Smoothness is a major factor affecting speed. The smoother the surface, the less resistance to roll. If a green is not smooth, the ball will tend to bounce, thus stop quicker.

Firmness is associated with hardness. The firmer the surface, the faster the green. For example, a ball will roll a greater distance on the floor than on a mattress. Difficulty arises in attempting to maintain greens firm enough to promote speed, yet soft enough to accept a well-struck shot. Balancing these two qualities requires and understanding of your golfers' expectations.

In addition to uniformity, smoothness, firmness and resiliency, contour also must be considered in determining proper green speed. What constitutes fast greens on one course may not be the same on another.

or example, if two greens each roll nine feet as measured by the stimpmeter, and one is flat and the other severely contoured, the latter will be much more difficult to putt than the former.

Managing greens for proper speed means achieving a happy medium. Greens that are too slow are not fun to putt. Nor are

greens that are too fast so that they elimi-

nate the skill level required of golfers.

Management Strategies

Good putting greens have a number of components. To achieve fast uniform greens, proper cultural programs need to be practiced.

Reducing the mowing height will increase the speed. Lower mowing heights promote uniform and smooth surfaces.

Often the questions is asked "How low can we mow?" A more proper question would be: "How long can we stay?" In other words, the lower the mow, the shorter the interval at which the putting greens stay healthy.

The shorter you mow greens, the more likely the turf will become susceptible to

temperature and moisture stress, disease pressure and damage through wear. Putting greens cannot be maintained at championship cuts indefinitely without turf loss or spending considerable money trying to prevent loss.

Care should be taken when mowing heights are reduced from normal cutting heights. An abrupt change can result in scalping and kill the turfgrass.

If mowing heights are lowered for a tournament under non-stress conditions, return to normal height when the event is over.

Care should be taken if height is to be increased under stress conditions. Research from the West and the Southwest has shown that increasing the height increases the water use rate.

Low mowing heights can cause restricted root systems. By raising the height under stress conditions, the root system may not be able to supply enough water to the additional tissue. It may be best to leave the cut low until the stress period has ended.

Frequent mowing promotes high shoot density and vertical leaf growth, which results in smooth, consistent greens. Varying the mowing direction daily also helps promote a more upright plant. Research has shown that a break in regular mowing can result in a brief, yet significant reduction in green speed.

Research at Ohio State has found that double cutting greens - mowing them twice a day - can significantly increase green speed. If pressure exists to increase the speed of the greens, double-cutting is an option to dropping the height of cut.

Grain appears when grass plants lie in different directions. In severe cases, shoots, stolons and rhizomes orient in various directions on the surface and interfere with the golf ball's proper roll.

Our work has shown that the difference of putting "with" moderate grain versus putting "against" the grain can vary as much as three feet. Effective grain control is a prerequisite for achieving uniform greens.

Verticutting helps reduce grain by promoting more upright growth and removing undesirable tissue. Verticutting is often done weekly during periods of active growth.

The challenge to improving green speed is knowing what practices will work for you and the same time providing a visually appealing and healthy turf.

Brushing is a common practice for reducing grain. Brushing is the process whereby a stiff, bristle-type brush is placed in front of the mower. As the mower moves across the green, the brush lifts the turfgrass plant up before it is cut. Brushing is effective but can cause damage to the plant.

The best time to brush is under conditions that promote turfgrass growth. Time interval between brushing depends on the severity of the brushing and how quickly the turf recovers. Avoid brushing in the turfgrass is under stress.

Thatch plays an important role in green

speed and quality. A small amount of thatch provides a certain amount of resiliency. However, excessive thatch disrupts the firmness and smoothness of the turf.

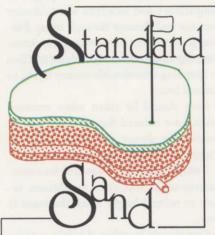
Priority should be set to control or manage thatch at an acceptable level. Vertical mowing, topdressing and coring are effective means of minimizing thatch. They should be done as a regular maintenance

Topdressing smooths the surface and provides a firmer base. Frequent top dressing is a positive step in providing a uniform

Although topdressing and brushing may initially slow down a green, eventually they will increase its speed.

The challenge to improving green speed is knowing what practices will work for you and the same time providing a visually appealing and healthy turf.

And finally, for all practices that are available for increasing speed, the environment plays the critical role in what you can and cannot expect and do.



We set the **Standard** for quality and performance...every time!

Standard Sand & Silica Company providing the Industry's Finest Sand for

GOLF COURSE CONSTRUCTION & GOLF COURSE RENOVATION

FRIED EGG NO MORE!

Try our New Trapsand #37M and you will get a Sand that:

- Has No Pebbles
- Won't Harm Your Reel Mowers
- Lets Your Ball Set Up

Post Office Box 35

Hwy. 17 & 92 North

Davenport, FL 33837

Phone (813) 422-1171

FAX (813) 422-8610

Can be used as a Top Dressing Sand

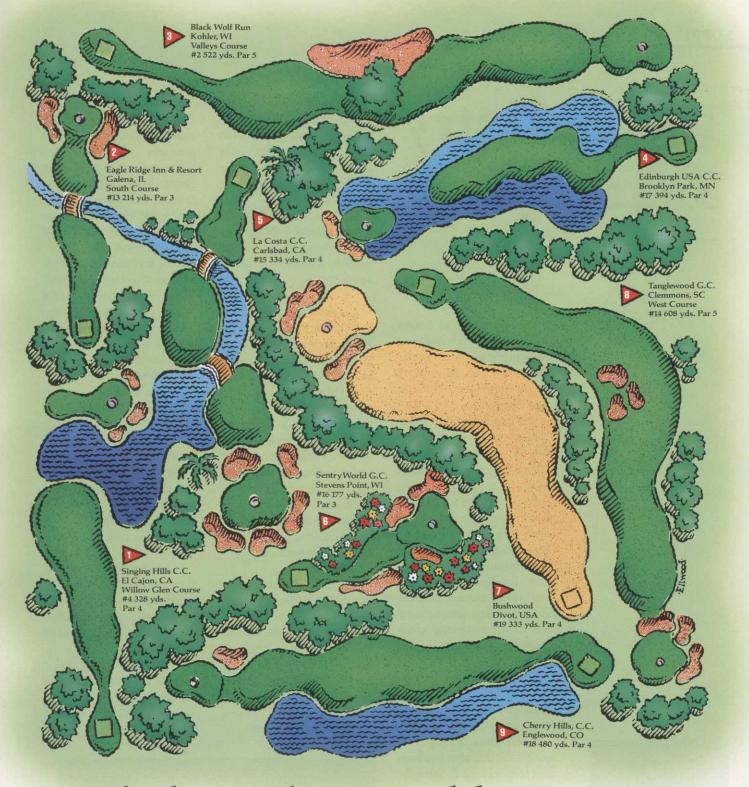
- IDEAL TOPDRESSING SAND MEETS USGA
- WHITE TRAPSAND
- **SPECIFICATIONS**

- GREENSMIXES
- IDEAL GREENSMIX SAND
- CHOKERSAND



JACKSONVILLE BRANCH 600 East 8th Street Jacksonville, FL 32206 (904) 355-0516

MIAMI BRANCH 4101 N.W. 70th Avenue Miami, FL 33166 Dade (305) 593-1430 Broward (305) 524-5322



Which Is Without Medalist Integrity? All Grass Seeds Are Not Created Equal.

Medalist[®] integrity is performance you can trust—year after year, bag after bag.

Medalist integrity is mixtures and blends that are carefully formulated by NK Medalist Turf Products using some of the industry's newest and most advanced turf varieties.

Medalist integrity means that when you seed with Medalist, there's no guessing. It's backed by over 100 years of Medalist seed experience. In every bag you benefit from the on-going turf research, the continual development of new varieties and the technical support provided by our turf specialists. That's Medalist integrity.

MEDALIST TURF

Trust Medalist integrity to perform for you. For more information, write or call: NK Medalist Turf Products, P.O. Box 59282, Minneapolis, Minnesota, 55459, 800-545-6093.

©1991 NK Lawn and Garden, Co., P.O. Box 59282, Minneapolis, Minnesota, 55459



Turf Industry Roundup

Marketing to Golf Course Facilities" is the title and topic of a seminar sponsored by *Golf Course News* Sept. 16-17 at Oak Brook Hills Hotel and Resort near Chicago.

The program will focus on the market needs of golffacilties and the development of market strategies to meet those needs.

Seminar topics will include trend data on the growth and changes in golf facilities; buying habits of golf course market segments including superintendents, developers and builders, and management company decision-makers; international marketing; successful green marketing; and result-oriented sales.

The program is designed for CEOs, sales/marketing vice presidents and directors, sales managers, andf marketing communication managers in companies that offer products and services for golf course facilities.

Contact United Publications, 207-846-0600 for more information.

The Travelers has added protection against environmental damage caused by pesticide application to its PGA Edge customized coverage for golf courses and country clubs. The program is available to any

facility employing at least one member of the PGA of America.

The coverage, available in all states, protects against bodily injury and property damage claims resulting from pesticide application.

The PGA Edge program also covers building building ordinances, computers, bridges, sprinkler systems, signs, greens and golf cars.

The Toro Co. has filed a lawsuit against Fuqua Industries, Inc., doing business as Snapper Power Equipment. The lawsuit charges that Fuqua's use of the word "Recycling" and other variations of the word "recycle" in advertising infringes on Toro's Recycler trademark.

"Toro's action... is not an attempt to prevent traditional uses of the terms recycle(s), recycling, etc., in connection with the reprocessing of glass, plastic, aluminum, etc.," says a company news release.

Lesco, Inc. announced earnings of \$1.7 million on record sales of \$41.6 million in the second quarter ended May 31. The sales were up nearly 20 percent from the same period last year but the earnings were down slightly from the record \$1.9 million earned last year during the same quarter.

Lesco Chairman James I. FitzGibbon attributed the lower profit margins to competitive pressures.

The company announced an annual dividend of 8 cents per common share payable July 9, up a penny from last year.

Sales increased in each of the company's product lines—fertilizers, turf protection products, seed, and turfcare equipment — and in all four sales groups: golf course sales representatives, stores serving commercial lawncare operators, lawn service sales representatives and telemarketing.

F. Leon Herron, Jr., retired chairman and president of O.M. Scott & Sons, Inc. has been elected to the board of directors of Lesco.

Herron joined Scott in 1965, was elected president the following year and chairman in 1971. He held both offices until he retired in 1983.

Hertz Equipment Rental Corp. is now offering a rental purchase program that requires no down payment and enables the customer to build up to 90 percent equity.

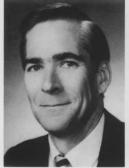
Dean Wagoner of Orlando has been appointed Rain Bird Sales contractor sales specialist for Florida. A Florida native,



Ornamental grasses and wildflowers were in abundance at Lofts Seed Inc.'s 15th annual Field Day at the company's research facilty in Bound Brook, N.J.

Turf Industry Roundup

Companies doing business with golf course superintendents in Florida are invited to submit their news releases to The Florida Green, c/o Janlark Communications, P.O. Box 336, Auburndale, FL 33823.







Dauterive



Freudenthaler

Busam

Wagoner

Wagoner joined Rain Bird in 1987 and most recently served as the company's South Florida district manager.

Other personnel changes at Rain Bird include the promotions of Frank Busam to vice president for quality, Kris Freudenthaler to director of human resources, and Pamela Kratzer to advertising assistant.

Drew Lillie has been named regional marketing supervisor for Monsanto's residential products division. A graduate of the University of Florida, Lillie will manage distributor relationships in Arkansas, Louisiana, New Mexico, Oklahoma and Texas. Patrick Quinn is a new marketing specialist for the residential products division. He will work out of the company's world headquarters in St. Louis.

Donald F. Myers has joined

Nor-Am Chemical Co. as project manager for developing products for use on field crops, turfand ornamentals. He comes to Nor-Am from Maag Agrochemicals in Vero Beach, where he was manger of wood protection research.

Joining Nor-Am as a group leader for method development is Lee Williams, a native of Immokalee; Brian N. Meyer, senior chemist for environmental sciences; Kent Rupprecht,

metabolism chemist for environmental sciences; Mark Christ, aquatic biologist, environmental sciences; and Christopher Leake, group leader, environmental sciences.

Tammy Dauterive has joined Sunbelt Marketing Services in Mount Dora as account executive. She formerly was marketing manager for the Florida Foliage Association. Sunbelt specializes marketing and advertising services for the horticultural and advertising industries.

Enviro-Gro Technologies, a wastewater residuals management firm based in Lancaster. Pa., has opened a product marketing division for a line of packaged commercial and re-

We work at ground level...



so you can play on top!

The fact is, Central Florida Turf is working hard to provide you with superior workmanship in construction of new golf facilities, irrigation with all turf installations or renovation of existing golf courses... and all at a competitive price!

> Jeff Harstine President/Vice President

> > **Rodney Davis** Secretary/Treasurer

Dennis Crews Sales Manager

Central Florida Turf, Inc.

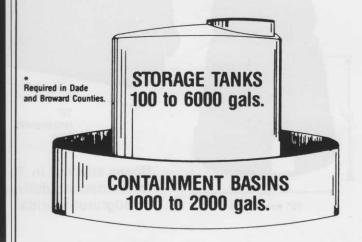
4516 East Kinsey Road Avon Park, FL 33825 (813) 452-2215 • 800-422-1187

Containment Basins for liquid fertilizer/pesticide storage. Statewide delivery. Order today! We are your direct source for tanks of all sizes, spray guns,

nozzles, hose and more. Send today for your free products flyer!



P.O. Box 1307 Lake Wales, FL 33859 Telephone (813) 638-2117



Plymouth irrigation boxes are made of a strong, tough thermoplastic material especially suitable for underground use. They're lighter in weight, easier to handle and less brittle than cast iron or concrete boxes. And, the covers feature molded-in green color to blend-in-with rather than stick-out-of your turf. Rectangular boxes have snap locking covers; 10" round boxes have twist lock covers; and 6" round boxes have snap fitting covers. All boxes nest for simplified storage. AMETEK,

Plymouth Products Division, 502 Indiana Avenue, Sheboygan, WI 53081,

Phone: 414-457-9435, FAX: 414-457-6652.

AMETEK PLYMOUTH PRODUCTS DIVISION

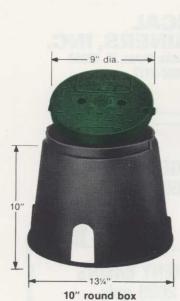
or Region for liquid

REPRESENTED IN FLORIDA BY

RICHARD DUNN R&D ASSOCIATES

502 N.W. 7th Street Delray Beach, FL 33444 (305) 278-5271







Boxes stocked in Tampa for immediate delivery throughout Florida.

SUPPLY SIDE



Reference Library

Architect List — The American Society of Golf Course Architects membership list, including mailing address and telephone number, is available free with SASE from the ASGCA, 221 N. LaSalle St. Chicago, IL 60601.

Environmental Video — The GC-SAA has produced a 14-minute video, "Links With Nature: Golf Courses and the Environment." The video is designed to show the public that a well-managed golf course can be an ecological asset for a community. Price is \$20 for members, \$30 for nonmembers, including shipping and handling. Call GCSAA membership department, 913-832-4480 to order.

Tree Tips — A 32-page, four-color brochure describing the proper techniques for tree felling and limbing is available free from Husqvarna Forest & Garden Co., 907 W. Irving Park Rd., Itasca, IL 60143; phone 708-773-2777.

tail products that should be ready by fall. The company is best known for its patented ESP pelletization process for drying sewage sludge.

Ciba-Geigy has released its nematodebased larvacide, Exhibit.

The nematodes are third-stage infective juveniles (*Steinernema carpocapsae*, strain 25) that aggressively seek out and parasitize target pests. The juveniles carry a bacteria (*Xenorhabdus* spp.) that is lethal to undesirable insects.

The nematode's life cycle begins when it enters a target pest through a body opening and releases its bacteria directly into the blood system of the host, which dies within 48 hours.

The nematodes develop into adults and reproduce new juveniles which seek out a new host. If they cannot find one within 14 days, they die.

Exhibit controls fungus gnats black vine weevils, strawberry root weevils and surface feeders such as billbugs, cutworms and sod webworms.

FNATS TIME

is growing near!



















t's time! . . . to reserve your ticket(s) for the Florida Nursery and Allied Trades Show (FNATS), the showcase of Florida's environmental horticulture industry:

When? September 13, 14, 15 Where? Orange County Convention / Civic Center, Orlando

This year's FNATS promises to be time well spent:

- · Exhibits, industry contacts, news and information
- · The First Annual National Horticultural Short Course
- · FNGA Landscape Awards Presentation
- · Casino Night Party!

Pre-register and save \$2.00

Contact FNATS today:

FNATS, 5401 Kirkman Road, Suite 650

Orlando, Florida 32819

407-345-8137 FAX: 407-351-2610







The Green Pages

A compendium of news and opinions about government, golf and the environment

Politicos propose 'marketbased' environmental incentives

Some politicians and environmental groups are calling for a new approach to solving environmental problems. "Market-based environmental incentives" would operate by making those companies that create environmental problems bear the total cost to society through higher product costs.

Costs for waste generation by companies and individuals would be geared to the amount they produce. In the same respect, if a company produced a chemical that contaminated groundwater supplies, that company or companies that manufactured that product would pay for the total cost of cleanup.

Keep a close eye on state legislators for market-based approaches that apply to golf courses and development.

Who's wasting it?

Water Fact: Approximately 42 percent of household water is used for landscaping, and landscapes are typically overwatered by 20 to 40 percent.

Curb chemophobia

The Natural Resources Defense Council has called for an 80 percent reduction in agricultural pesticide use.

The organization cited the recently completed EPA well water study as a source for proposing such drastic cuts.

Although the cuts are aimed at agricultural uses, superintendents should brace themselves for future demands by such organizations concerning turfand ornamental products as well.

Public information — and lots of it — is the only way to curb chemophobia.

Traces of herbicides found in rainwater

Traces of herbicides were found in rainwater samples from 23 states in a study recently completed by the U.S. Geological Survey.

The herbicides detected included atrazine, alachlor, metalachlor and a degradation product of atrazine. The main source of the herbicide pollution is believed to be agricultural pesticide use

This is the first major study to confirm that pesticides can be transported through vaporization into the atmosphere.

Although turf applications were not believed to have contributed to the pesticides found in the rainwater samples, superintendents should be prepared to answer questions from concerned citizens and members.

More restricted pesticides likely

The Environmental Protection Agency has proposed new criteria for determining which additional chemicals should be classified as "restricted-use" pesticides.

The additional criteria, which are designed to protect groundwater supplies, use data from persistence and mobility research and actual detection in groundwater.

These additional criteria are expected to move several turf pesticides now classified for general use to the restricted-use list within three to five years.

Chemical firms face ad charges

Chemical companies as well as lawn-care providers are coming under fire for false or misleading advertising.

This scrutiny focuses on claims that products or services are "non-toxic" or "completely safe."

While FIFRA does not regulate lawn-care company advertising, it does prohibit advertisers of chemical products from making claims as part of a pesticide's distribution and sale that differ substantially from claims made on the label.

Superintendents should be knowledgeable and candid about the toxicity of golf course chemicals when talking to the media about the uses of those chemicals.

High Court OKs local pesticide laws

The U.S. Supreme Court has ruled unanimously that a local government may enact pesticide rules more stringent that federal requirements.

The June 21 decision overturned the Wisconsin Supreme Court's ruling that an ordinance adopted by the town of Casey, Wis., was illegal because it pre-empted the Federal Insecticide, Fungicide and Rodenticide Act.

The 1985 ordinance requires a town permit to use pesticides on public lands or to perform aerial pesticide applications on, private lands.

Forum examines wetlands classification

In an environmental forum sponsored by GCSAA, John Meagher, director of EPA's wetlands office; John Studt, chief of enforcement for the U.S. Army Corps of Engineers; and Rep. Jimmy Hayes (D-La.) discussed how wetlands should be classified.

Hayes, who has introduced a bill that would classify wetlands for protection according to their ecological value, said that the current policy violates the rights of landowners.

"The Fifth Amendment to the constitution states that the landowner has the right to determine what is allowable and that government intrusion is the exception rather than the rule," he said. "If the government does intrude then it is onlydone under circumstances in which (1) the landowner's rights are protected and (2) if land is taken, the landowner should receive compensation or mitigation."

His bill would strip the EPA of its veto power over wetland development and vest greater administrative responsibility in the Army Corps of Engineers.

Under HR1330, wetlands judged to have the highest ecological value would be classified as Type A wetlands. Permits for activities in these wetlands would be tightly regulated, and owners would be compensated for the value of their property.

The bill would allow permits to be issued for activities in Type B wetlands — those judged to have significant but not necessarily critical functions — if mitigation measures were undertaken.

Type C wetlands — those determined to have little ecological value — could be altered without a federal permit.

The current definition of wetlands brought millions of acres under federal protection — prompting some landowners to claim federal infringement on their fundamental property ownership rights.

Studt explained the Corps of Engineers' and EPA's efforts to simplify and streamline the wetlands permitting process.

Both Studt and Meagher commended the February issue of Golf Course Management, which was sent to them prior to the forum, and referred to articles while giving their presentations.

"You folks (in the golf industry) have an increasingly positive story to tell, and you should do so," Studt said.

Bill aims to expand simplified pensions

Reducing the cost and red tape involved in small business pensions is the goal of a crop of

Many fail to see the humor in Ringer commercial

Perhaps you've seen this commercial... a pitchman, standing in front of a series of drawings, delivering a lecture:

"These are the chemicals that go into the lawn that go into the rainwater that goes into the streams that go into the lakes that go into the fish that go into the people who put the chemicals in the lawn in the first place."

Those are the words from a recent TV spot produced by Ringer Corp., a lawn-care products company based in Minneapolis. The spot, intended to be light and humorous, publicizes Ringer's "all-natural" Restore fertilizer.

Controversy surrounds the commercial not only because of the anti-chemical stance it implies, but because some believe the claims it makes are without scientific support. In a recent *Wall Street Journal* article, ChemLawn Services Corp., O.M. Scott & Sons Co., and other competitors attacked the ad, calling it "false" and "misleading."

Although the commercial is for a home lawn-care product, some superintendents have reacted to what they describe as unfair criticism in the ad's message. A number of GCSAA members have called headquarters after see-

ing the ad. GCSAA's voice has been added to the number of corporations and organizations that contacted Ringer.

Ringer responded by saying the company's "main motivation is to anticipate the market trends and to provide effective products," said Scott E. Boutilier, commercial marketing director. "This objective coexists with the debate over chemical restriction but did not cause it."

With home lawn-care products and services increasingly under the microscope, the golf/turfindustry often finds itself under similar scrutiny.

In light of the harsh anti-chemical rhetoric, superintendents need to do their best to make sure that all the facts about turf chemicals and practices are made known to the public.

"Now is the time for GCSAA members to get in touch with their club members, civic groups, media and other public organizations to educate them that professional golf course superintendents are responsible individuals who respect the environment," says Charles T. Passios, CGCS, the association's government relations liaison.

new U.S. Senate bills and a Department of Labor plan.

The simplification of pensions is targeted for businesses with fewer than 100 employees.

Currently, only eight percent of such businesses have pension plans. The proposed Simplified Employee Pension plans (SEPs) would be managed similarly to individual retirement accounts.

Only businesses with fewer than 25 employees are now able to take advantage of SEPs.

There are several different proposals from both the Democrats and Republicans, as well as one from the Department of Labor.

The proposals vary on the maximum contribution per year and employee/employer shares of contributions

Of course, any retirement plan must include all full-time employees of the business.

EPA: Groundwater protection is states' job

In a task force report and in a speech to a group of governors, the EPA has been saying that it is largely the responsibility of the states to protect groundwater from pesticide contamination. The Groundwater Task Force, which was formed in July 1989 to review the agency's groundwater protection program and develop policies, released its report in early May.

The report noted the importance of the state role in managing and protecting groundwater, and said that such management could require decisions on groundwater allocation, land use, and pesticide restrictions.

EPA is encouraging the states to develop "generic" management plans, according to Susan H. Wayland, deputy director of the EPA's Office of Pesticide Programs. Wayland addressed the National Governors Association's Conference on Comprehensive Groundwater Protection Programs in March.

Given the economic crises many states are experiencing, it is unclear how these plans will be financed, managed and enforced. Superintendents will need to keep abreast of changing regulations as states develop their own groundwater protection programs.

ast summer, President Ray Hansen asked me to become involved with the South Florida Water Management District by leading a group representing golf courses on a committee that was drafting the water district's "policy document."

Effluent: A Troja Horse?

This document will be the blueprint for future water use. Each of Florida's five water districts will have a similar document drawn up by the end of the year.

My involvement with the committee and my experience in using effluent water for the past seven years has led me to some

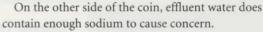
specific conclusions on the merits and pitfalls of its

As a source of irrigation water, treated effluent has some plusses. Depending on its treatment level, it can contain a high degree of nitrogen; the water I have been getting from my local utility runs 20 milligrams per liter.

How much of this nitrogen actually gets to the turfgrass plant has not been established. The lab technicians of my local utility company estimate that 65 percent of the nitrogen is lost to volatilization during the process of dispersing it through the irrigation system.

Furthermore, the Florida Department of Environmental Regulation has set the maximum allowable limit of nitrogen in "irrigation quality effluent" at 10 mg/l.

If your turfgrass plants are getting 3.5 milligrams of nitrogen per liter of water from your irrigation system, they are not getting enough nitrogen from the irrigation to save you any money on your fertilization program. The benefit of this material as a source of nitrogen is minimal.



In the final process before entering the pipeline, the effluent must be treated by chlorine injection to kill the bacteria. We all agree this has to be done, especially since the water is to be sprayed in areas of public access.

But that process forces us to deal with sodium levels in the soil that are three or four times higher than they would be if we were using groundwater.

Excessive levels of sodium not only cause turf loss; they also reduce the efficiency of other chemicals and fertilizers. We end up spending more money without getting any increase in turf

In a subtropical climate such as ours, heavy rainfall during some parts of the year will help flush the sodium out of the soil, but it builds up again during the dry seasons.

And sodium isn't my only concern.

Zinc, copper and boron are all quite abundant in treated effluent. After several years of using effluent on the JDM golf courses, these three heavy metals are approaching levels of toxicity to the

Furthermore, since the pH of effluent generally ranges between 7.5 and 8.5, the pH of soil irrigated with effluent will gradually increase, creating another toxic situation for the turfgrass plant.

Whatever nitrogen benefits might be derived from effluent water are more than offset by the costs of dealing with sodium, heavy metals and soil alkalinity.

An even bigger issue is the loss of turf quality that is not so easily explained to the membership and could cost some people their positions.

And of course there is the bottom line: the cost of the material to the golf course.

The re-use of wastewater is one way for utility companies to get rid of their hazardous waste. Their present methods of deep-well injection and ocean outfalls have come under so much sharp criticism from environmentalists and water conservationists that DER and the water management districts have forced the utility companies to create re-use plans.

Basically, each utility company has two years to develop a plan to begin re-use within five years and have 100 percent re-use within 20 years.

Before its plan can be accepted, a company must have signed contracts with the end users, showing daily and yearly flow projections.

The golf course operators in each utility service

Their need for those contracts gives us some leverage.



Tom Benefield, CGCS

area should determine the fair market value of treated effluent before they begin negotiating with the utility companies.

Right now, utility companies typically pay about 40 cents per thousand gallons to build theinfrastructure to dispose of their effluent. That's the maximum anyone should pay... but why should we pick up the whole tab for disposing of someone else's hazardous waste?

Collier County Utilities has one of the fairest arrangements: the golf courses on their contracts pay between 4 cents and 10 cents per thousand gallons — approximately what it would cost a golf course to operate a recharge well for irrigation.

Managers at Collier County Utilities maintain that the lion's share of the cost of disposal should be borne by the residential customer. He's the one flushing the toilet.

Forcing a golf course to pay more than the fair market value for treated effluent has the effect of placing a water tax on the only remaining greenbelt recharge areas of the urban environment.

What sense does that make?

Not only would golf courses be recharging the aquifer by re-using treated effluent, but they would be paying a tax for the right to provide this necessary community service!

The utility companies claim that the end-user should pay the whole cost of the material because the end-user is receiving the benefit.

What they don't mention is that peddling effluent to golf courses leaves more water in the aquifer for them to sell to an expanded service base.

A recycling solution utility companies won't even discuss is piping the effluent back to the residential customers who produced the material in the first place. Constructing those pipelines would cost the companies 10 times what it will cost to install lines to golf courses. And they would have no choice but to pass the cost on to the customers.

So even if the utility company absorbs the entire cost of building the pipelines to the golf courses, it is saving its customers 90 percent of the cost of the alternative. Another reason utility companies will argue against sending treated effluent back to residential customers is that 50 percent of the potable water sold to homeowners is used for landscape irrigation. If the companies were to force residential customers to irrigate with treated effluent, they would be cutting their revenue from potable water sales in half.

So as we deal with this complicated issue over the next six months, here are some things to keep in mind:

- We are willing to make land that is worth hundreds of millions of dollars available for disposal of hazardous waste.
- We have pipelines, pump stations and sprinkler heads worth millions of dollars already in place.
- We in effect already have paid our fair share. Every dollar we have spent on land and infrastructure is one less dollar that John Q. Public will not have to shell out of his own pocket.

A representative of a utility company once told me, "We may have a moral obligation to re-use wastewater, but it is politically unfeasible to ask for rate hikes on sewer bills of residential customers to pay for it."

On another occasion, a member of the SFWMD board of governors told me that the attitude of elected officials about who should pay for something comes down to three solutions:

- A. Charge the rich and wealthy.
- B. Target special interest groups
- C. Charge the end user.

Our work is cut out for us. We must explain to the rule makers exactly how the golf industry fits into the water puzzle.

Even in the driest of years, we are net contributors to urban, shallow aquifers.

We have a positive story to tell. We must get out and tell it.

The man who flushes the toilet should have to help pay for disposing of the hazardous waste he creates.



We are dedicated to helping turf grass managers do their jobs more efficiently by striving to provide the best parts and service available

DISTRIBUTOR FOR

TORO CUSHMAN/RYAN OLATHE

TORO IRRIGATION GREEN MACHINE BILLY GOAT POWER TRIM FOLEY MAIBO OHIO CROSLEY TRAILERS CUSHMAN INDUSTRIAL
TRENCHMASTER
OTTERBINE
NATIONAL MOWERS
BERNHARD EXPRESS DUAL
CHEM-PRO SPRAYERS
ALLEN HOVER MOWERS
HAMMER RECYCLED PLASTICS

STANDARD PAR AIDE BROYHILL CYCLONE GANDY WINDMILL VICON

SALES MANAGER, Don Delaney (407) 333-3600

JACKSONVILLE

1741 Hamilton St. 32210 (904) 387-0516

TERRITORY MANAGERS Carl Heise John Higgins Bob Ward

LAKE MARY

300 Technology Park 32746 (407) 333-3600

TERRITORY MANAGERS
Phil Bradburn
James Griffin

Premium Quality Sod & Sprigs



Nutri-Turf, Inc.

ONE OF THE ANHEUSER-BUSCH COMPANIES

This Turf's For You!

- Premium Grade Tifgreen (328)
- Premium Grade Tifdwarf
- Premium Grade Tifway (419)
- Premium Grade Tifway II

16163 Lem Turner Road Jacksonville, FL 32218-1550 (904)764-7100 1-800-329-TURF (In Florida)





FOR ORDERS OR INFORMATION DIAL TOLL FREE

1-800-521-8891

IN FLORIDA DIAL

1-800-541-2255

WAIT FOR TONE, THEN DIAL 368-4527

Tel: 407/582-6180
1810 HYPOLUXO ROAD SUITE D-9 LANTANA, FLORIDA 33462

WANTED



Dick Campbell



Russ Mitchell



Tom Gaines



Bill Lund



Steve de Mello

OUT OF COMPETITIONS HAIR!

These professionals are guilty of:

- Great Service
- Best Pricing
- Maintaining 4 Service Locations
- Top Products

- Expert Knowledge
- 25 Plus Years of Florida Turf Tradition
- Industry Support

BUT YOU CAN FIND THEM AT:

Dick Campbell, North and Central Florida — (407) 422-2337 Ext. 862 Pager, (407) 247-1727 Mobile Russ Mitchell, Southeast Florida — (407) 835-5283 Pager, (407) 346-7078 Mobile Tom Gaines, Dade and Broward Counties — (305) 397-4372 Pager, (800) 432-3411 Bill Lund, Southwest Florida — (813) 883-1724 Pager, (800) 282-2719 Steve de Mello, Tampa Area North — (813) 883-1684 Pager, (800) 282-2719





nce upon a time in a little village called Flog there lived an ostrich and an eagle. Of course, they had some obvious differences, but all the ornithologists in

Onewayor the other... It's coming

the world agreed they were indeed birds. They lived in peaceful harmony with their neighbors, the

humans.

One day, the humans that shared the village with the ostrich and the eagle decided the feeding and living habits of these two birds might

be fouling the forests, fields, and streams. The village elders met one night and made up a list of rules that the ostrich and the eagle must obey if they were to remain living in the village of Flog. The elders did not tell the ostrich and the eagle about the rules. They merely posted a notice containing the rules in the village square. The notice said the ostrich and the eagle had 30 days to comply with the rules or they must leave.

The next morning the eagle saw the notice, and flew over to tell the ostrich. The ostrich was too busy to talk to the eagle. He didn't have time to discuss rules and regulations. He had work to do. So, the eagle went home to think about the new rules on his own and decide what to do. The next day the eagle went back to the ostrich's house to get him to go with him to talk to the elders about the rules, but once again the ostrich was too busy to sit down and talk to the eagle. So, the eagle went by himself to see the elders.

The eagle reminded the elders that there were many things that he did to help the village. While he might take fish from the stream for food, he also kept mice from stealing the grain. And while he might use some kindling to build his nests he also gave warning when strangers appeared.

The elders began to understand that they might have acted hastily in making the rules, so together they wrote some new rules that both could agree upon for the good of the village.

When they were through, the eagle said, "Tomorrow, come out to the meadow and I shall show you some flying tricks that you've never seen before."

The next day the elders crowded into an ox cart to go to the meadow to see the eagle fly. The way to the meadow passed by the ostrich's house. The ostrich could hear the sound of voices as the cart drew closer. He went outside to see what was going on. When he saw the cart full of elders coming around the bend, he thought they were coming to discuss the rules with him. Being an ostrich, he did the only thing he could do in this situation. He stuck his head in the sand, and hoped that they would go away.

Just then one of the elders spied the eagle practicing some loops and dives. "Look! Look! There's the eagle," he cried! The cart driver was looking over his shoulder trying to see the eagle and the oxen veered off the path and trampled the poor ostrich.

Moral of the story: You can fly with the eagles or you can stick your head in the sand with the ostriches. In either case, the ox cart is coming!

Learn to fly or you'll never know what hit you!

Green



Joel D. Jackson, CGCS

A NU BEGINNING.



through experience, are the central core and most essential part of our success. We also realize the importance of involving "the superintendent" in all of our development decisions. Our NU beginning promises to lead Nucrane Machinery into the 21st century.

NUCRANE MACHINERY

...on the cutting edge of a NU future



2001 D. North Congress Ave. Riviera Beach, FL 33404 (407) 842-0440 417 Central Park Dr. Sanford, FL 32771 (407) 323-9555

11820 Lacy Lane Ft. Myers, FL 33912 (813) 275-4441 72104 Corporate Way Thousand Palms, CA 92276 (619) 343-0270

preemergence you want with the fertilizer your turf needs.

LESCO 20-2-20 with 0.95% Ronstar®

The reputation of Ronstar® speaks for itself. On golf courses, it's the leading pre-

emergence for control of goosegrass, crabgrass, Poa annua and other turf weeds.



LESCO now offers a product that combines the effectiveness of Ronstar with a fertilizer specifically formulated for controlled growth, LESCO 20-2-20 with 0.95% Ronstar.

With an analysis that is designed to increase stress tolerance, this formulation has equal amounts of nitrogen and potassium for optimum turf development.

To keep your course weed-free and looking great, use LESCO fertilizer with Ronstar today.

To order, contact your LESCO sales representative or call (800) 321-5325

toll free. In Cleveland, call 333-9250.



ESTABLISHED 1962

20005 Lake Road Rocky River, Ohio 44116

Fertilizers, Seed, Control **Products, Equipment, Parts**

Contains Ronstar® Herbicide, a registered trademark of Rhone Poulenc, Inc.

Always read and follow actual label instructions before applying any pesticide product.

LESCO — The Right Combination for the Professional Turf Manager