



The Florida Green

Fall 1996



**Second Hole
Colony West
Tamarac**



Its good looks and major components have something in common. They're easy to see.



Even when it's not dressed up, Jacobsen's new Tri-King™ triplex trim mower looks great. But don't take our word for it. Tilt the top fender and grill out of the way, and lift off the air intake cover. When you do, you'll see just how easy the Tri-King is to maintain. It's also easy to operate with responsive power steering,

automatic 3-wheel drive, powerful 18 hp gas or 19 hp diesel engines and the comfortable, new easy-on/easy-off operator's area. You'll get the highest quality of cut, and a choice of 72" or 84" cutting widths with 5-, 7- or 10-blade reels. For precise cutting around traps and flower beds, the 84" model features a generous 10" overhang.

**KILPATRICK
TURF EQUIPMENT**
NAPLES - (813) 333-8086
FT. LAUDERDALE - (305) 792-6005

A wide stance provides solid stability. Plus, you can switch from fixed to floating reels by removing a single bolt. Ask your Jacobsen distributor for a demonstration today, or call 1-800-727-JAKE.

THE PROFESSIONAL'S CHOICE ON TURF.

**JACOBSEN
TEXTRON**

Jacobsen Division of Textron Inc.

<http://www.jacobsen.textron.com>

Tresca
TAMPA - (813) 521-3077
ORLANDO - (407) 291-1717
JACKSONVILLE - (904) 448-8070



A comfortable steering wheel and responsive power steering make maneuvering easy, even in tight quarters.



A new, open layout with increased seat adjustment and added leg room makes getting on and off easier and operating more comfortable.



Routine maintenance is easy. The top fender and grill tilt up and out of the way, and the air intake cover simply lifts off.



Improved cutting height and bedknife adjusters ensure the highest quality cut and trouble-free adjustments.

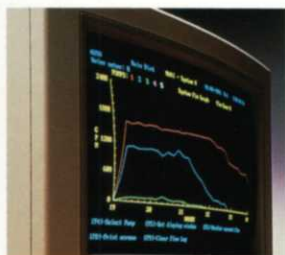


A full 25-percent increase in torque to the reels powers you through the toughest cutting conditions.



NUMBER SEVEN GREEN
PEBBLE BEACH GOLF LINKS®

Renovation by Rain Bird



What do Pebble Beach Golf Links®, Cypress Point Club, Muirfield Village, Shinnecock Hills Golf Course and La Quinta-Mountain Course have in common?

Irrigation renovation by Rain

Bird. In fact, five of the TOP TEN* golf courses in the United States have all upgraded their irrigation systems in recent years with state-of-the-art Rain Bird irrigation products.

Whether you have a nine-hole country club course or a world-class tournament course, you can achieve excellent results by choosing Rain Bird irrigation products for your renovation needs.

Each course presented unique challenges. That's why at Rain Bird, we offer a complete range of irrigation

products: Irrigation Control Systems—MAXI® V, PAR, MSC satellites—and The Freedom System™, our newest wireless technology; remote control valves, both self cleaning and pressure regulating in brass or plastic; quick coupling valves; and your choice of DR impact drive or EAGLE™ gear drive rotors.

In addition, Rain Bird won't leave you high and dry after the sale. Rain Bird's

Technical Service staff, along with our worldwide network of distributors, assures you immediate after-sales service and parts availability.

Before you choose an irrigation system, consider Rain Bird.

IT'S THE PRODUCT OF CHOICE.



RAIN BIRD
GOLF IRRIGATION



Boynton Pump &
Irrigation Supply
1-800-782-7399

Reproduced by permission of Pebble Beach Company.
* As rated by *Golf Digest* 1993.



Officers

President Dale Kuehner, CGCS
 Colony West Country Club
 6800 NW 88th Ave
 Tamarac, FL 33321
 (954) 721-5980

Vice President Joe Ondo, CGCS
 Winter Pines Golf Club
 950 S. Ranger Blvd
 Winter Park, FL 32792
 (407) 657-7565

Secretary/Treasurer Michael Perham, CGCS
 Fountains Golf Club
 4516 E. Fountains Drive
 Lake Worth, FL 33467
 (561) 642-2724

Past President Greg Plotner, CGCS
 International Golf Management
 2101 East Edgewood Drive
 Lakeland, FL 33803
 (800) 413-5500

Directors

Central Florida Geoff Coggan, CGCS
 The Great Outdoors
 (407) 269-5094

Coastal Plains Todd Carlton
 (904) 926-8873

Everglades Darren Davis
 Olde Florida Golf Club
 (941) 353-4441

North Florida Avid Amirault
 Deercreek CC
 (904) 363-1505

Palm Beach Chip Fowkes
 Frenchmen's Creek GC
 (561) 622-1188

Ridge Alan Puckett
 Lake Region Y&CC
 (941) 324-4678

Seven Rivers Paul Illgen
 Glen Lakes G&CC
 (352) 596-3611

South Florida Bob Klitz, CGCS
 (305) 480-8552

Sun Coast Tom Crawford
 Misty Creek CC
 (941) 922-2141

Treasure Coast Bill Lanthier, CGCS
 Mariner Sands GC
 (561) 283-0202

West Coast Steve Cellucci
 Seminole Lakes CC
 (813) 796-5499

Staff

Association Manager Marie Roberts
 1760 NW Pine Lake Dr
 Stuart, FL 34994
 Phone: Days (561) 692-9349
 (800) 732-6053 (Florida WATS)
 (561) 692-9654 (Fax)

CONTENTS



FALL
1996

FOREWORDS PRESIDENT'S MESSAGE 6

In his inaugural message, President Dale Kuehner, CGCS, promises to work towards strengthening ties with the Florida Turfgrass Association. "We have different priorities but a common goal," he says.

SPOTLIGHT CROWFOOT, DISTINGUISHED SERVICE AWARD, MASTER 10

Tom Benefield wins the Distinguished Service Award, Vic Conigliaro and the Seven Rivers Chapter won the Crowfoot Open, and Daniel Zelazek has won the admiration of nearly everyone for his masterful cover portraits of golf courses.

COVER STORY ALL IN THE FAMILY 24

Dale Kuehner, CGCS served an apprenticeship "from birth to 1988" at his family's golf course in Pennsylvania before moving to Colony West in Tamarac when his grandfather bought out the other equity members.

HANDS ON TOOLS OF THE TRADE 40

Three superintendents, an equipment manager, and a petroleum operations consultant offer different perspectives on keeping all that expensive machinery running in top shape.

HEADS UP SEE YOU ON THE NET 52

James Moore, director of construction education for the USGA Green Section, says the turfgrass information available to any superintendent with a computer and a modem will be more up-to-date than anything available at any university library.

STEWARDSHIP OUTREACH AND CHANGING ATTITUDES 58

Golfers' attitudes towards environmental stewardship are changing, says USGA Green Section Director John Foy, but now it's time to take it up a notch. Every golf course superintendent must reach out and educate his community about the importance of protecting the environment and the ways golf courses help do that.

PHOTO CONTEST WINNERS ANNOUNCED 78

Three superintendents not only make golf courses beautiful, they also know how to record their handiwork.

AFTERWORDS CLIPPINGS, JARRELL, JACKSON 80

Three views of the challenges facing the turf industry are offered from three publications. Mark Jarrell wants to know why more superintendents don't support fund-raising efforts on behalf of turfgrass research while Joel Jackson muses on politically correct golf.

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

The Florida Green

Official Voice of the Florida Golf Course Superintendents Association

Published four times a year:
On the twenty-fifth of January, April, July, and October

Editor Joel Jackson, CGCS
Disney's Magnolia G.C.
Address Florida Green business to:
6780 Tamarind Circle
Orlando, FL 32819
(407) 248-1971 Florida Green voice/fax
(407) 824-6298 Work
E-mail address: jimmerlot@aol.com

Assistant Editor Mark Jarrell, CGCS
Palm Beach National G.C.
7500 St. Andrews Rd
Lake Worth, FL 33467
(561) 965-0046

Publications Chairman Greg Plotner, CGCS
International Golf Management
2101 East Edgewood Drive
Lakeland, FL 33803
(800) 413-5500 Work
(941) 667-0137 Work Fax

Business Manager Paul Crawford
Palm Beach Country Club
P.O. Box 997
Palm Beach, FL 33480
(561) 845-2395 Work
(561) 863-0040 Fax

Editor Emeritus Dan Jones, CGCS
Banyan GC
West Palm Beach

COPYRIGHT NOTICE: Copyright 1996, Florida Golf Course Superintendents Association. All rights reserved. May not be reproduced in whole or in part without written permission of the FGCSA. 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.

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

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

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

Contributors to this issue

Cover Story Principal Photographer: Dan Zelazek

Cover Story Writer and Supplementary Photographer: Joel Jackson, CGCS

Spotlight: David Bailey, CGCS; Scott Bell, Joe Ondo, CGCS

Stewardship: Shelly Foy, coordinator; Darren Davis; John Foy, USGA; Richard Roth

Hands On Package: Joel Jackson, CGCS, coordinator; Joe Eagle; Chuck Gast, CGCS; Michael Swinson; Keith VanMeter; Roy Wilshire, CGCS

Heads Up: James Moore, USGA

Afterwords: Mark Jarrell, CGCS; Joel Jackson, CGCS

Copy Editor: Jennifer Jackson

Production

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

Publication Manager Larry Kieffer
Art Director Doris Dionne



413 Magnolia Ave. • P.O. Box 336 • Auburndale, FL 33823
941-967-1385 Fax 941-967-4553

Advertiser Index

AgrEvo	19	North Georgia Turf	65
Agro-Tech 2000	57	Nucrane Corp.	C4
Almar Chemical Co.	36	Nutri-Turf, Inc.	77
Aquagenix	49	Otterbine-Barebo Inc.	26
Asphalt Research Technologies	55	Parkway Research Corp	75
Central Florida GCSA	23	Partac Peat Corp	30
Century Rain-Aid	59	Pike Creek Turf Farms	48
Ciba Turf Division	04	Rain Bird Sales (Comml)	01
DuCor International	67	Rainbow Grassing	57
E.R. Jahna Industries	70	Regal Chemical Co.	73,81
Epic of Wisconsin	29	Rhone Poulenc	08
Floratine Products Group	61	Smithco	41
Florida Silica Sand	14	South Florida Grassing	83
FGCSAA	57	South Florida Turf Products	26
Go-For-Supply	53	Southern Golf Products	63
Golf Agronomics Supply	21	Spread-Rite, Inc.	30
Golf Ventures	35,51	Standard Sand & Silica	69
Harrell's, Inc.	11	Subaqueous Services Inc	44
Haverland Blackrock Paving	75	Sullivan Electric & Pump	71
Hi Tech Chemicals	77	Sunniland Turf Products	85
Howard Fertilizer Co.	37	Terra International, Inc.	33
IMC Vigoro	39	Tifton Physical Lab	54
ISK Biosciences Corp.	27	TMI Turf Merchants	C3
Jacobsen Dealers of Florida	C2	Tom Burrows Turfgrass Svc	34
Lake Doctors	36	Toro Dealers Of Florida	Center
Laserturf	34	Toro/Liquid Ag	47
Lesco, Inc.	07	UAP/Florida Inc	31
Lewis Equipment Co Inc.	87	Valent USA	15
Lofts Seed, Inc.	43	Zeneca	17
Milorganite	12		

Advertising Information

The Florida Green welcomes advertising inquiries to:

Marie Roberts, Association Manager

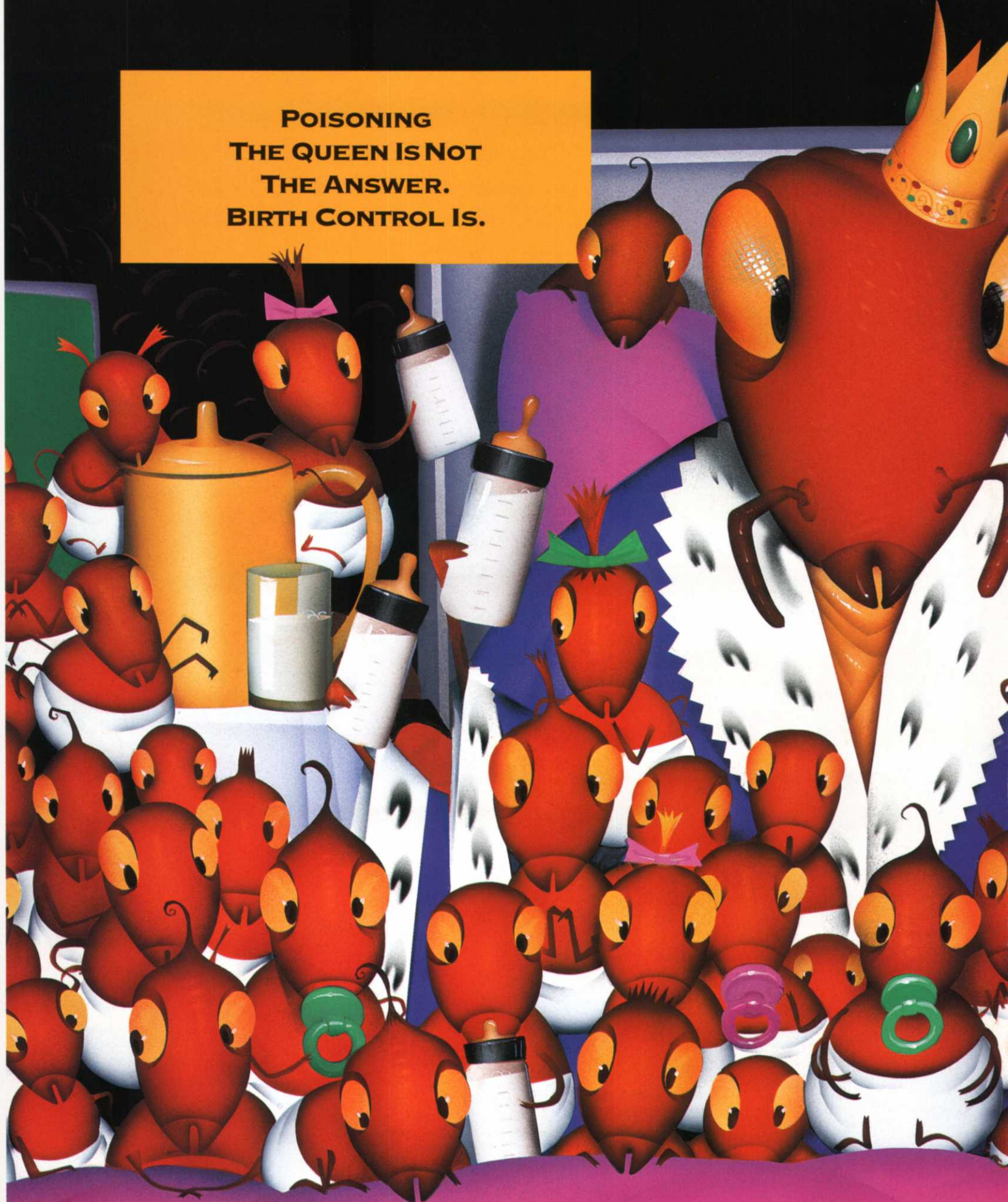
1760 NW Pine Lake Drive

Stuart, FL 34994

561-692-9349

800-732-6053 FL WATTS

**POISONING
THE QUEEN IS NOT
THE ANSWER.
BIRTH CONTROL IS.**





Every day, the queen gives birth to 200 turf-damaging, body-stinging, juvenile delinquents. That's 73,000 fire ants a year. And insecticides aren't guaranteed to stop her.

That's because conventional insecticides kill the worker ants before they can feed it to the queen, creating an alarm to relocate the mound.

But Award[®] is an insect growth regulator that sterilizes the queen. Like birth control. After workers feed Award to the queen, she can't give birth to new ants, and before long the mound collapses.

For more details, call 1-800-395-TURF.

And stop the fire ant lifecycle with Award. Before Her Royal Highness sends you 73,000 birth announcements.



I want to challenge every member

I am honored to be the president of the FGCSA this year. I am looking forward to working with Joe Ondo, Mike Perham, Greg Plotner and the rest of the state board to

make this a successful year. I am proud of the amount of talent and diverse expertise that the members of this association possess. I want to challenge every member of this association to get more involved at both the local and state level. If there is a committee you would like to serve on, or if you have an idea on how to improve this association please call me. I want to congratulate Paul

Crawford on receiving the Distinguished Service Award. Paul is the epitome of the talent and dedication that our association possesses.

I would like to thank Greg Plotner for the great year he had as president. I value the advice Greg has given me in the past and will continue to rely on him this year during my presidency. Greg pointed our association in the right direction and it is my intention to continue the course he set for us.

This year we will complete the GCSAA affiliation process. Florida will remain a leader in both state and national affairs. I want to strengthen our ties to allied associations in the turf and golf industry. At this year's FTGA show I met Roy Bates, the new FTGA president, and I am looking forward to bringing these associations closer together.

While both associations have different priorities we both have a common goal. This goal is to get the state of Florida to recognize turf as a major player in the state economy. We provide a multitude of well paying jobs and bring in large amounts of

tourist dollars. By using the strengths of our two associations we will be able to accomplish much.

Both associations have been lobbying the University of Florida to take turfgrass research more seriously. The University of Florida is finally realizing this need. Due to the structure of the University system, change is coming slower than we would like. The FTGA has agreed to allow the chairman of the FGCSA research committee to also co-chair the FTGA awards committee. This will allow both associations to get the most out of our dollars by avoiding duplication in research.

One of the primary reasons for the existence of a superintendent's association is to provide education for it's members. This coming year the FGCSA will continue to offer strong educational opportunities for superintendents throughout the state. Continuing education is the key to

allowing our members to provide some of the finest playing conditions in the world.

The opportunity to access knowledge is more important now than ever. With computers becoming common place in today's golf maintenance operations the Internet will be a major information source for sharing ideas among superintendents. We are now in the computer age, you can't turn on your television set and see a commercial without it giving an Internet address. Computers are playing a more important role in the golf industry with computerized irrigation, word processing, budgeting and forecasting, CAD, and electronic pesticide databases. The University of Florida and the GCSAA now have web pages on the Internet. With this type of information at your finger tips I can't fathom anyone not owning a computer. If you don't know how a computer can help you, make sure you read the articles on turf web sites on the Internet in this issue of the Florida Green.

PRESIDENT'S MESSAGE



Dale Kuehner, CGCSA President
FGCSA

Introducing the new advantage in irrigation repair, replacement and upgrade.

From LESCO and Bear™ Irrigation comes the advantage you've been looking for in golf course irrigation. Improved performance from a new line of components designed to upgrade your Toro® 600 and 700 Series valve-in-head sprinklers.

Included are two conversion assembly kits engineered to replace as many as 23 original equipment manufacturer assemblies. And also a unique Bear Evolution™ Series RG850 Sprinkler.

Loaded with features like three and four-inch pop-up heads, ground-hugging flush fit, dual front nozzles, greater pattern flexibility and a superior distribution pattern, these components offer never before encountered benefits.

Experience the Bear Irrigation advantage. Ask your LESCO Sales Representative for information or call 800-321-5325.

Bear and Evolution are trademarks of Bear Irrigation Inc.
Toro is a registered trademark of The Toro Company
LESCO is a trademark of LESCO, Inc.

LESCO™



INTRODUCING
THE **SYSTEM** DESIGNED TO PUT
MOLE CRICKETS
WHERE THEY BELONG.



THE CHIPCO® CHOICE™ INSECT CONTROL SYSTEM. Forget the past. There has never been anything like the new CHIPCO® CHOICE™ Insect Control System for putting an end — once and for all — to one of the most destructive pests a golf course superintendent has to face: Mole crickets. The CHIPCO® CHOICE™ System utilizes an entirely new kind of chemistry that will deliver virtually 100% control of mole crickets for six full months. **WE GUARANTEE IT.** We're so confident that CHIPCO® CHOICE™ will keep your valuable turf free of damaging mole crickets that we'll make you an offer no one else would dare consider: A 100% satisfaction guarantee. If you're not completely satisfied with the mole cricket control you



GUARANTEED.

receive with the CHIPCO® CHOICE™ System, simply call our 1-800-334-9745 hot line number. We'll make sure your turf is properly protected for the full six months. **WE'LL EVEN APPLY IT FOR YOU.** Here's another unique feature of the CHIPCO® CHOICE™ Insect Control System: It's available only through CHOICE™-certified applicators who will use carefully calibrated slit application rigs designed to deliver this revolutionary new chemistry in the most precise and effective manner. So you don't have to worry about warehousing chemicals, calibrating equipment or timing applications. This year, put mole crickets where they belong with the satisfaction guaranteed control of the new CHIPCO® CHOICE™ System.



with any crop protection chemical, always read and follow instructions on the label. CHIPCO is a registered trademark of Rhone-Poulenc. ©1996 Rhone-Poulenc Ag Company.

Tom Benefield:

1995 Distinguished Service Award Winner

BY SCOTT BELL

At the 1995 Crowfoot Banquet at the Bay Hill Club, Tom Benefield, CGCS was recognized for his outstanding service to the FGCSA as an outspoken champion of new ideas, a leader in representing the golf industry in water use issues and his association work as officer, voting delegate and magazine editor.

Tom was born in Orlando and raised in Alachua. Out of his love for the outdoors and working the land, he began to farm in the mid-70's. He and his partners were among the first to use plastic for growing peppers. Their technique greatly increased yields on their west coast farms and they were doing quite well until a hard freeze ruined them after a few years.

Out of a job and stung by farming, Tom was bitten by the golf bug. In 1981 he graduated from Lake City Community College and he took a job as assistant superintendent at River Oaks in Houston, Texas. From there Tom returned to Florida to take an assistant job at Sun Air CC near Haines City. That job was all encompassing since he was responsible for horses and orange groves as well as the golf course.

Tom's first superintendent job was at Beacon Woods GC in Pasco County. He enjoyed much success there, but his greatest reward was winning over a green committee chairman who did not want to hire him at first. After five years the chairman had grown to respect and admire Tom enough that he did not want him to leave when Tom had an opportu-

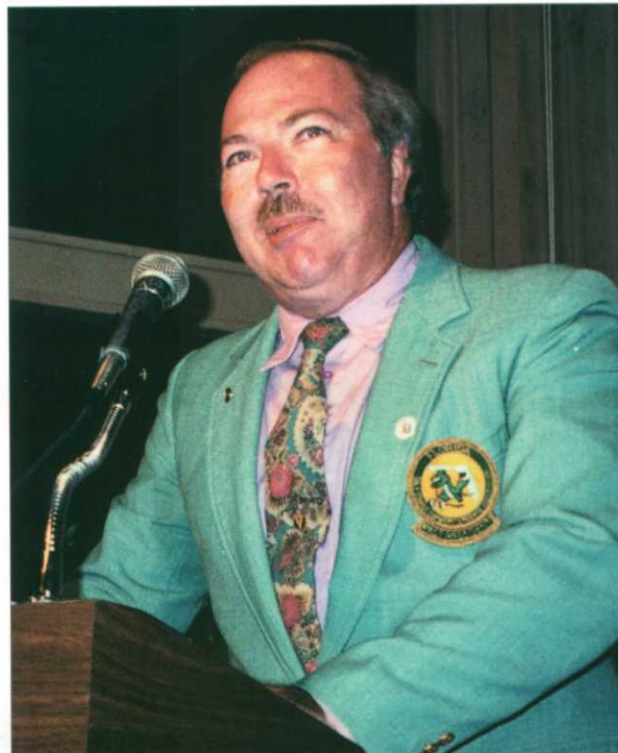
nity to move to JDM in Palm Beach Gardens.

While at Beacon Woods, Tom became interested in chapter service. He was the editor of the West Coast Chapter newsletter, The West Coast Wind and the External Vice President. His good friend, Cecil Johnston, urged him to serve as an FGCSA Officer. Tom's service culminated with his presidency in 1991-92. Tom also represented the FGCSA as the GCSAA Voting Delegate from 1989 to 1993.

While at the JDM Country Club, Benefield became very active with the South Florida Water Management District. He served on water management committees and attended countless district meetings and hearings. He awak-

Benefield became very active with the South Florida Water Management District. He awakened many FGCSA board members to the water politics and how poorly represented the golf industry was in these issues and debates.

ened many FGCSA board members to the water politics that went on and how poorly represented the golf industry was in these issues and debates. Many, including Benefield, feel that his best contributions were made at this time. He



Tom Benefield receives the FGCSA's 1995 Distinguished Service Award at Bay Hill. Photo by Joel Jackson.

made many contacts and he got superintendents involved in with their local Water Districts.

During Tom's tenure on the FGCSA board, The Florida Green magazine was undergoing changes. After Dan and Irene Jones "retired" from producing the magazine for thirteen years. The FGCSA retained Janlark Communications to manage and produce the publication. Janlark did a great job helping The Florida Green earn Best Overall awards from the GCSAA in 1989, 1990 and 1991. The FGCSA desired to take over management of the magazine once again and the task of reorganizing that effort fell to Tom as the new editor. He did an excellent job with the help of Paul Crawford as Business Manager and Marie Roberts as Advertising Manager. Tom was instrumental in getting more superintendents to write articles and make it truly the voice of Florida superintendents once again. Janlark Communications still assists the FGCSA in producing an award-winning magazine.

POLYON[®] RONSTAR[®]

**TWICE
THE
POWER.**

(half the work!)

Full season fertilizer—with no more weeds. You know about Polyon[®], the controlled-release fertilizer that gives a season's worth of nutrients with one application. Now Harrell's custom blends Polyon[®] with Ronstar[®], the just-as-long lasting pre-emergent herbicide that doesn't root prune.

Stronger, healthier turf and half the work. Call today **1-800-282-8007** for details on how Polyon[®] Fertilizer with Ronstar[®] can be your answer to successful turf.

Polygon is a registered trademark of Pursell, Inc.

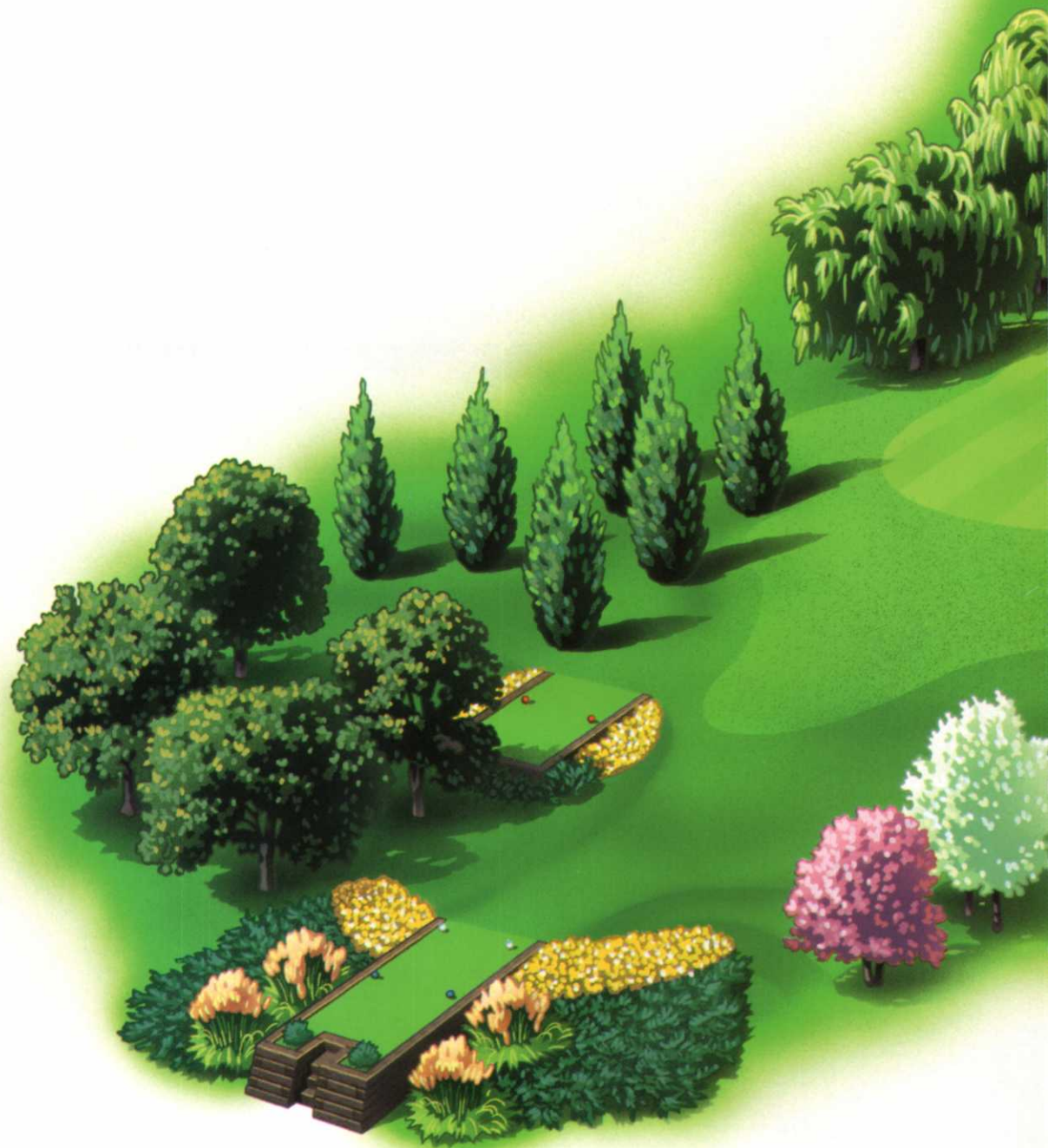


POLYON[®] WITH Ronstar[®]

The full season fertilizer and herbicide you've been counting on.

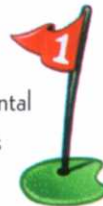
HERE. THERE. EVERYWHERE.

HOW'S THAT FOR APPLICATION GUIDELINES?





On greens. On tees. On fairways, roughs, flower beds, transplants — even in your divot mix. Milorganite delivers outstanding results for a uniform playing surface. No other fertilizer is easier on plants or simpler to use. Milorganite's slow release, organic nutrients won't burn or cause a flush of growth. Plus, it's high in micronutrients such as iron to promote dense, vigorous turf. And Milorganite resists leaching, for a sound environmental profile. So call your distributor today, or call Milorganite's turf professionals direct at **1-800-304-6204**. It's easy.



Meanwhile, the JDM club and development went into bankruptcy, leaving Tom a lot of property to maintain and not much to do it with. He stuck it out, hoping things would get better. After a couple of tough years, a new owner and the CCA management group arrived and JDM did begin to improve.

Then, disaster struck.

A misapplication of a herbicide instead of a fungicide on thirteen of the East Course greens ruined them. An unfortunate costly mistake by a seasoned veteran spray tech. As superintendent, Tom accepted full responsibility for the mishap and offered his resignation

CCA reluctantly accepted his resignation and Tom has nothing but praise for the generosity and professionalism that CCA demonstrated with regard to his leaving.

Presently, Tom is the Southeast Regional Manager for Eco-Soil Labs. Eco-Soil provides equipment wash down sites and microbial injections through irrigation systems. Tom is very active in the Florida Turfgrass Association and is currently serving as Chairman of the External Affairs Committee.

Through this position he can still work with and help superintendents. Tom is also serving on the Green Advisory Committee of the South Florida Water Management District. He has been instru-



Still active in water use issues, Tom presents FTGA's case for funding a Water Watchdog service at the FGCSA Summer '96 board meeting in Orlando. Photo by Joel Jackson.

mental in the FTGA's hiring of a water consulting firm in response to growing pressure for new regulations on water use and allocation.

He encourages all superintendents to get involved in the industry by serving on committees and boards or writing for publications. Tom is now the editor of the Florida Turf Digest for the FTGA.

Tom misses the early mornings on the golf course and the fellowship with other superintendents, but he enjoys his new career. His innate sense for forward thinking sees pesticide usage declining in the future and the use of biologicals more widely accepted.

Tom lives in Hobe Sound, Florida with his wife Debbie and his fifteen year old son, Joshua. Joshua went to work for

another legend, Dick Grey at the new Florida Club this summer. While his son may not follow his father, he is learning about hard work while growing in a golf course.

Tom feels that Hobe Sound is "just right" and hates to see anymore growth. Like most superintendents, he is concerned about the environmental impacts for future Florida growth and he advocates slow managed growth.

As a fellow FGCSA Board member during Tom Benefield's presidency, I saw first hand his dedication to the association, the Florida Green and the industry. This dedication continues today. I feel that the FTGA is very fortunate to have Tom on their team. His involvement helps us all!

**Special
GOLF
COURSE
MIXES**

Sterilization Available

Since 1948

Florida Silica Sand Co., Inc.

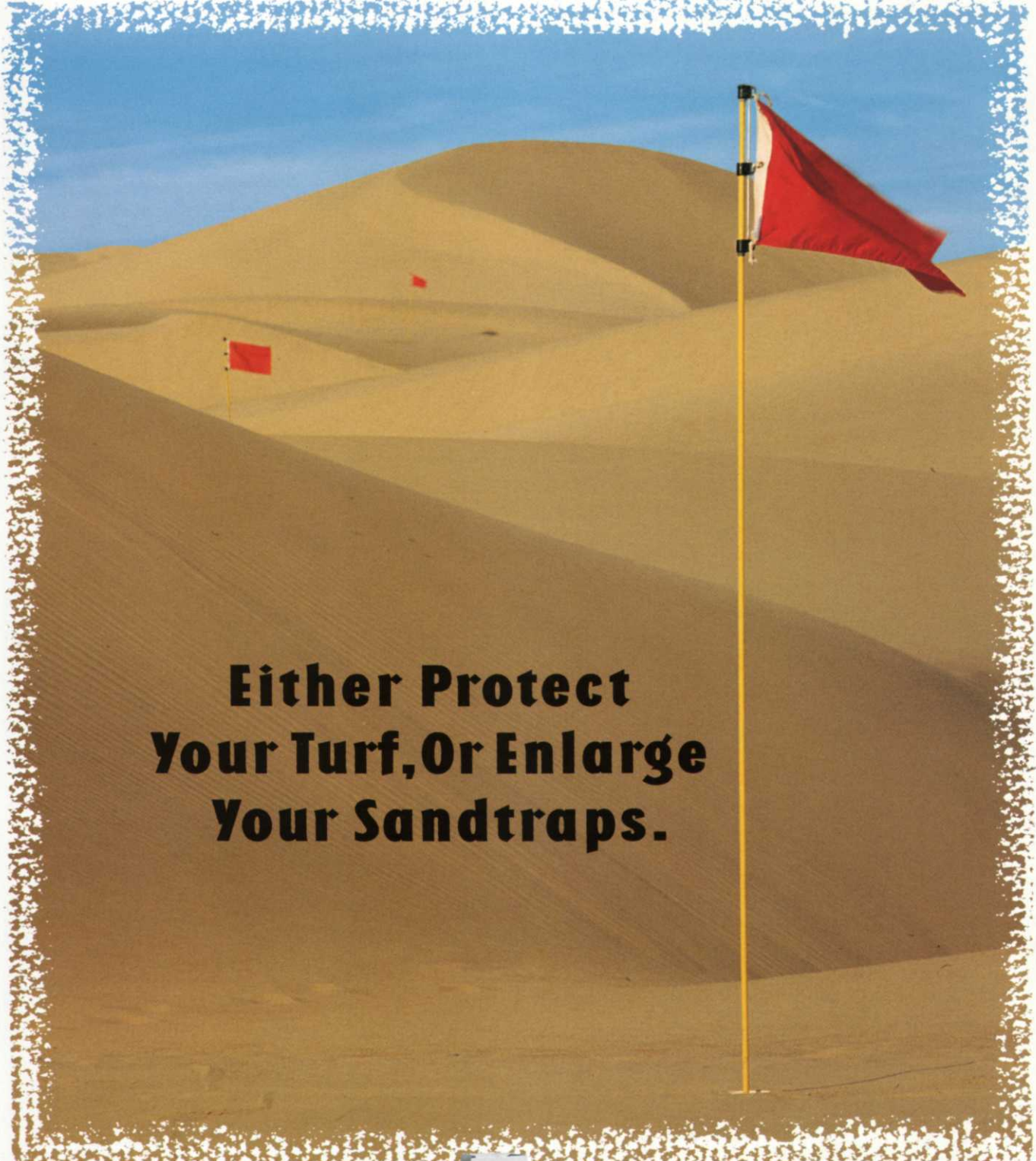
Dade County
949-3521
Broward County
923-8323

1-800-330-3521

Complete Line Of
LANDSCAPE
Materials

Red Ball
Diamond Clay





Either Protect Your Turf, Or Enlarge Your Sandtraps.

Mole crickets. Fireants. Cutworms. Sod webworms. Armyworms. Fleas. Chinch bugs. Wasps. Who knows what they could eventually do to your golf course? Exactly why you should protect all of your greenery with ORTHENE® Turf, Tree &



Ornamental Spray. It's easy. It's economical. It controls the broadest spectrum of tough turf pests. And best of all, it's a heck of a lot better than the alternative. For more information, call 1-800-89-VALENT. Professional Products Team



Now in easy-to-use Water Soluble Pouches.

Daniel Zelazek: Portrait of a Master

BY DAVID BAILEY, CGCS

The hallmark of The Florida Green for years has been the cover photography. How can a small state magazine have the best covers in the golf business?

The source of this success is Daniel Zelazek. He is a professional industrial photographer for Pratt and Whitney, located in West Palm Beach. His assignments include jet engines, space shuttle fuel pumps and other high tech devices. For several years he has been working exclusively in digital photography. He is now using a camera valued at \$30,000.

Weekend golf photo sessions reveal the true Daniel Zelazek. His love for the outdoors and golf was established in his youth, as he followed his early sports heroes — Sam Snead, Gary Player and Ben Hogan. When his family moved from Connecticut to North Palm Beach in the mid 1960s, Zelazek started caddying at PGA National Golf Club. He enjoyed the courses so much he worked on the maintenance staff there for six summers during high school and college. Zelazek and Fred Klauk were high school golf teammates and college roommates. Upon graduation from the University of Florida, he took six months to travel the United States and determined photography would be his future career. Zelazek then attended the famous Brooks Institute of Photography in Santa Barbara, California. Influenced by his exposure to the American west landscape, he admired the art of Brett Weston and Ansel Adams. It was only natural that Zelazek's early efforts were black and white landscapes. His black and white prints have appeared in gallery and university museums from coast to coast and in Europe, winning

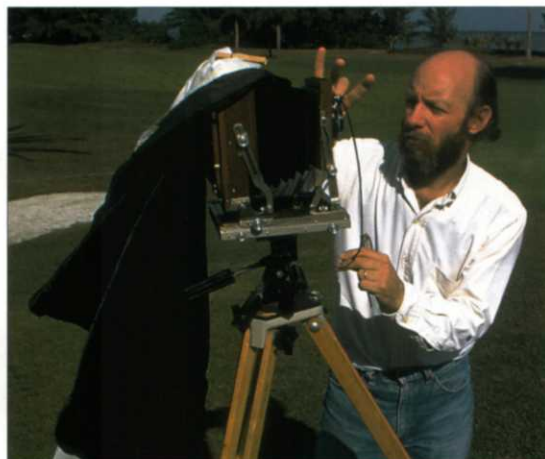
numerous awards. After three years in the West, Zelazek returned to Florida for his current position.

In 1981, after years of career commitment and not playing golf at all, the opportunity opened for a new cover photographer. Zelazek said, "This enabled me to return to golf, enjoy the sport and start playing again. It has always been a pleasure working with the superintendents."

Zelazek is an extreme perfectionist on any project in which he gets involved. The cover photography quality is a direct reflection of his lifelong commitment to excellence. Using only large format equipment, the 5" x 7" film sheet supplies the detail Zelazek demands for a two-page cover.

So always save your Florida Green magazines. Some day the covers will be collector's items!

Editor's Note: Nothing gets me fired up more for a cover story visit than to hear the excitement in Daniel's voice when he describes his photo shoots. He brings an artist's eye, a craftsman's touch and a golfer's appreciation to each assignment. We are indeed fortunate to have such a fine talent working for the Florida Green. Thank you, Daniel!



Nothing automatic about this camera! Daniel adjusts the settings on his 1979 custom made 5 x 7 Deardorff Wooden View Camera. Photo by David Bailey.



Daniel is used to working from loader buckets and forklifts, so this high reach at the Gasparilla Inn was an unexpected bonus. Photo by David Bailey.



All bundled up on a frosty morning, Daniel awaits the first rays of sunshine at Marsh Landing to capture what turned out to be a very dramatic cover shot for the Spring '96 issue. Photo by David Bailey.

Changing the Course.

ZENECA
Professional Products

The 20th Annual Crowfoot Open



Paul Crawford (right) received the 1996 FGCSA Distinguished Service Award at the Crowfoot Open banquet after surviving a good natured "roasting" introduction from his long time friend, Butch Gill. Photo by Joel Jackson.

BY JOE ONDO, CGCS

Walt Disney World was host to Central Florida's Golf Course Superintendents' 20th Annual Crowfoot Open.

At the State Board Meeting on Saturday a new Executive Board was elected to a one-year term. New officers are Dale Kuehner, CGCS, President; Joe Ondo, CGCS, Vice President; and Mike Perham, CGCS, Secretary-Treasurer. Greg Plotner, CGCS will serve one more year on the Board as Past President. A new budget and new list of goals and objectives were approved for the 1996-97 fiscal year in hopes of continuing to make our association better for our members.

At the Sunday night banquet comedian/musician Dan Riley kept the audience in stitches with his routines and Mickey and Minnie Mouse were on hand for photo opportunities. Paul Crawford was presented with the FGCSA Distinguished Service Award for 1996 and well roasted in the process by Butch Gill. Clem




The 1996-97 FGCSA Officers elected at the Summer '96 board meeting in Orlando are from left: Secretary/Treasurer Michael Perham, CGCS; Vice President Joe Ondo, CGCS and President Dale Kuehner, CGCS. Greg Plotner, CGCS, remains on the board as immediate Past President. Photo by Joel Jackson.

(From the left) Richard Coyle and Dale Mitchell of Golf Agronomics present a \$5,500 donation from their rebate program to the FGCSA Research Fund. Over the past six years their donations have totaled over \$24,000. Immediate Past President, Greg Plotner, CGCS accepts the donation for the FGCSA. Photo by Joel Jackson.



Pythium Gives You Two Choices.



Pull out your hair.



Prevent it with Banol.

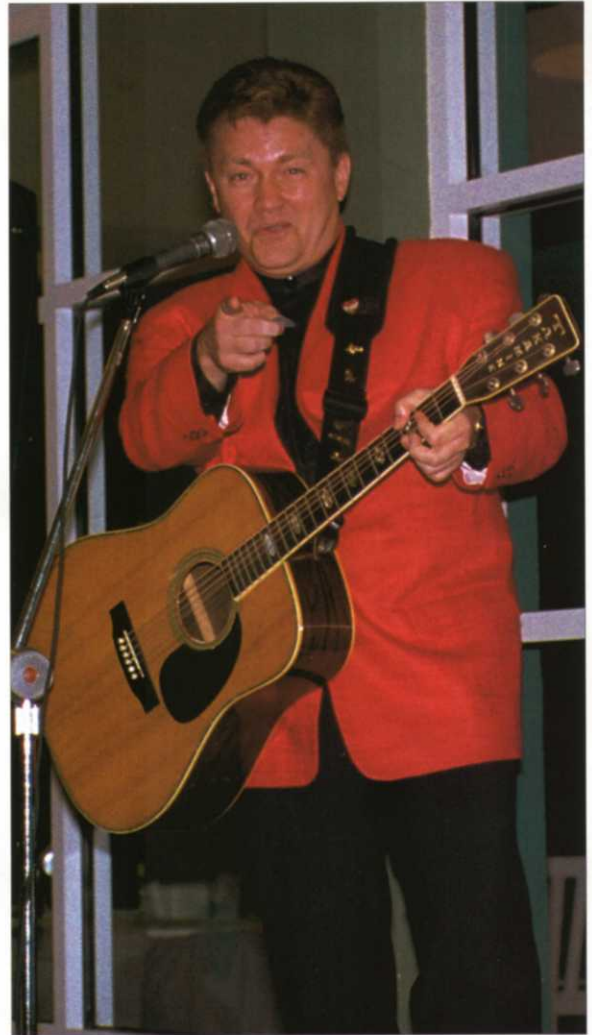


There's one sure way to stop a pythium problem. Banol® Fungicide. Because Banol controls the three forms of pythium in all types of turf. It controls blight as well as crown and root rot in established turf, plus damping-off in newly seeded areas. Banol

can be sprayed when overseeding without harming germinating seedlings. In fact, its performance has been proven to be outstanding as both a preventative and a curative, with no damage to turf. Banol shows no signs of resistance development, either. So don't let ugly, balding patches scalp you. Stop pythium right down to the roots—with Banol.

Banol[®]
FUNGICIDE

 **AgrEvo**[™]
A company of Hoechst and NOR-AM

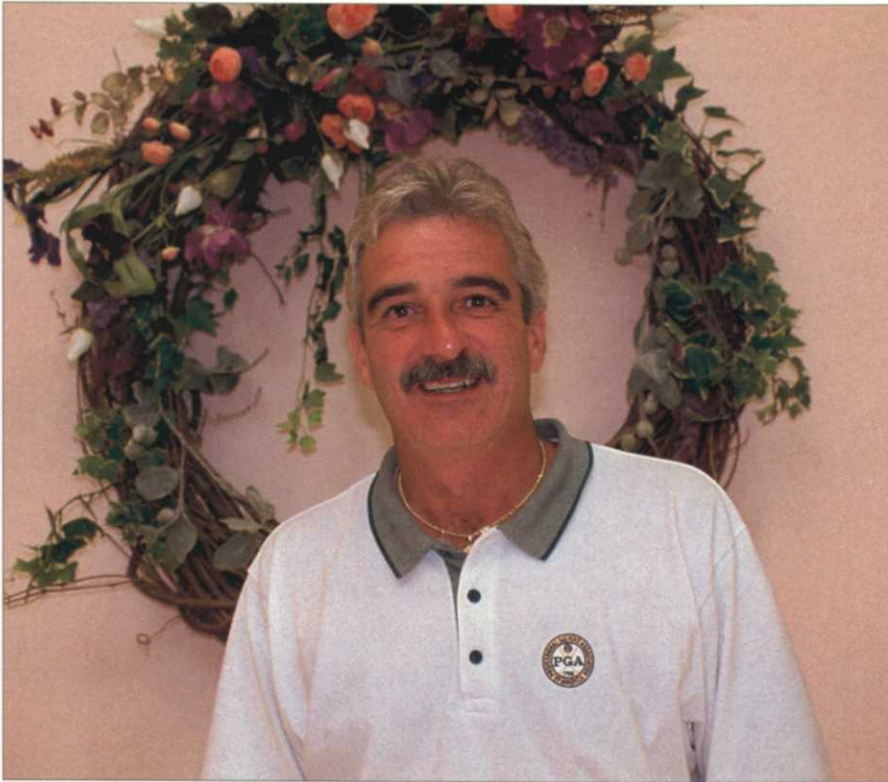


Singer-comedian Dan Riley kept the Crowfoot Open banquet crowd in stitches with his humorous and sometimes irreverent takeoffs on popular songs. Photo by Joel Jackson.

There's a lot being written about First Ladies these days. Central Florida has a clear favorite, Vilma Kamphaus, First Lady of the Crowfoot Open. Superintendent hubby, Larry Kamphaus may be the Chairman of the Crowfoot Committee, but we know who really does all the work. Photo by Joel Jackson.

Your hosts for the 20th Annual Crowfoot Open weekend were from left to right. Front row: Tom Trammel(MetroWest); Kevin Rotti(Eastwood & President, Central Florida Chapter); Tom Alex(Grand Cypress) and Dwight Kummer(Bay Hill). Back row: Larry Kamphaus(Walt Disney World) and Joe Ondo(Winter Pines). Photo by Joel Jackson.





The Low Gross winner of the Commercial Division was Steve O'Neill, a member of the North Florida PGA. Photo by Joel Jackson.

Stewart and Steve Kuhn were announced as 1996 recipients of the President's Award for Lifetime Service.

On Monday morning Joel Jackson, CGCS and his staff had everything ready for an 8:00 shotgun start for approximately 120 superintendents, sponsors and guests. Using the Stableford scoring system (with 1 point for a bogey, 2 points for par, 3 points for a birdie and 4 points for an eagle) play seemed to move at a better



- Minimal damage to course.
- Minimal labor to replace bunker sand creates opportunity costs.

Golf Agronomics Supply & Handling

Serving Central & South Florida Coast to Coast

2165 17th St.

Sarasota, FL 34234

(800) 626-1359

(941) 955-4690 Fax

Golf Agronomics meets all your top dressing needs with our ability to customize your mix with a variety of soil amendments including:

**Dolomite • Hi-Cal • Wetting Agents
Charcoal • Humic Acid
Minor Elements • Rock Phosphate
Gypsum • Customer Products.**

Golf Agronomics donates a % of every ton of top dressing sold to the FGCSA. Since its opening, we have donated in excess of \$23,000. Our sincere thanks to all of our customers.



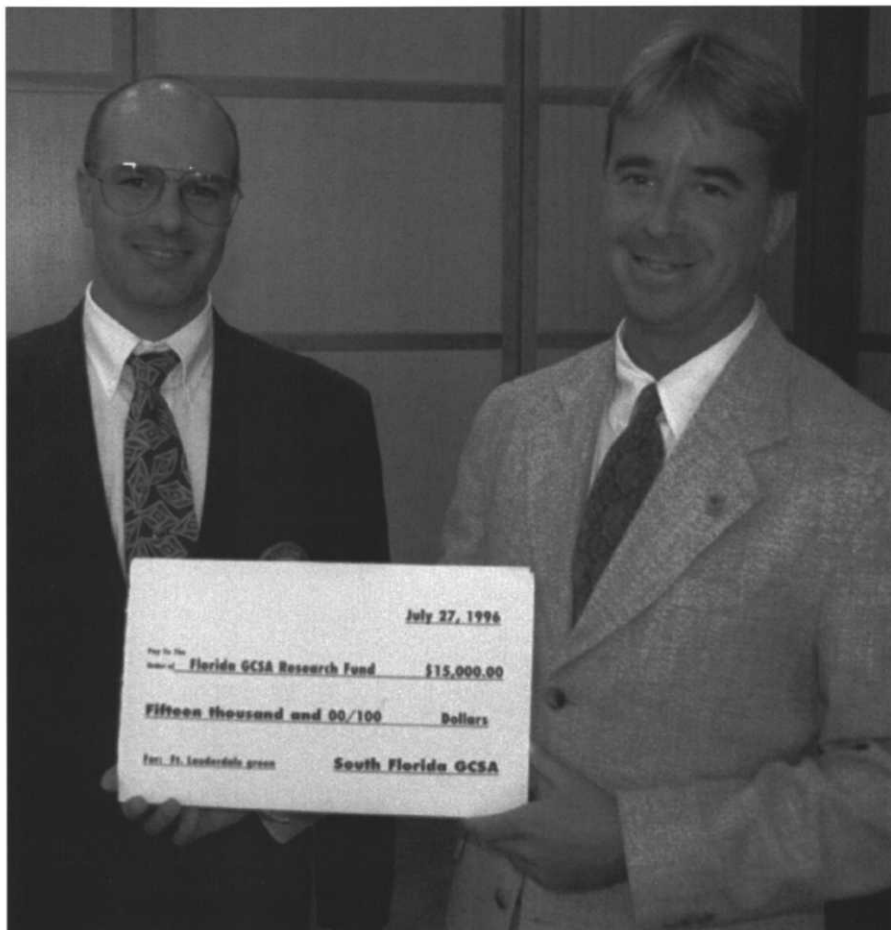
SPOTLIGHT

pace this year. In less than five hours, it was time for a check of scorecards. Chapter team competition was as close as ever, with Seven Rivers winning a match of cards over Central Florida and Treasure Coast one shot back. Members of the winning team were Vic Conigliaro, Stuart Bozeman, Dennis Kuestes and Bob Roessing.

In individual competition, Vic Conigliaro shot a fine 72 to qualify for the state team, along with Mark Hopkins who qualified earlier this year. Finishing second was Mark Henderson in a match of cards over Larry Livingston, CGCS. In the net division Dennis Kuestes was first, Jay Gratton second and Stuart Bozeman third. In the commercial division Steve O'Neill was low gross winner with Steve Sorrel second and Mike Cook third. In the net division the winner was Kent Busser, followed by Chip Lewison and Harry Becker.

Congratulations to Harry Becker for his first career hole-in-one on the 3rd hole and winning closets to the pin prize on that hole. Other CTP winners were #6 Roy Wilshire, #12 Dave Oliver, #15 Keith Longshore, and long drive #8 Mark Hopkins.

A special thanks to Walt Disney World, Bonnet Creek Club, Joel Jackson, CGCS and his staff, Larry and Vilma Kamphaus and the Crowfoot Committee, and all our Gold and Diamond Sponsors for another successful event.



*Another successful South Florida Expo was celebrated as Bob Klitz, CGCS(right), South Florida External VP presented a \$15,000 check to incoming FGCSA President Dale Kuehner, CGCS. These Expo funds annually are the cornerstone for supporting the operation of the Otto Schmeisser Research Green in Ft. Lauderdale.
Photo by Joel Jackson.*



Anchored by Low Gross Superintendent winner Vic Conigliaro's par 72 and Net Division finishes of first and third by Bob Roessing and Stuart Bozeman, the Seven Rivers Chapter captured the Crowfoot Open Team Championship.(left to right) Vic Conigliaro, Dennis Kustes, Bob Roessing and Stuart Bozeman. Photo by Joel Jackson.

From the 1996 Crowfoot Committee

A Special Thank You

to the Sponsors of the 20th Annual Crowfoot Open!

1996 DIAMOND SPONSORS

AgrEvo U.S.A. Co. • Alden Equipment Co. • Almar Chemical Co.
Aquatrols - "Primer" • Atlantic Irrigation Supply • Bayer Corporation
Ciba Turf • Club Car - North America • Environmental Golf
Environmental Waterway • Florida Irrigation Supply • Florida Potting Soils
Florida Turfgrass Association • Golf Ventures • Greg Norman Turf Co.
Harrell's Inc. • Howard Fertilizer Co. Inc. • International Golf Management
Jacobsen-Textron • Jahna (E.R.) Industries • Kissimmee Electro, Inc.
L.P.G.A. International-LPGA • Lesco Inc. • Lyle Inc. • Monsanto Ag Group
Nematode Controllers • North Florida P.G.A. • Nucrane Machinery
Nutri- Turf, Inc. • Olin Pine Straw • Palmer Course Design
Professional Greens & Turf Aerification Inc. • Pursell Industries
R. C. Dunn Oil Co. • Rhone Poulenc Ag. Co. • Seven Rivers GCSA
Smithco, Inc. • Southern Golf Products • Sunbelt Seeds, Inc.
T.F.I. - Turf Star Brand Seed • Terra International • Toro/Liquid Ag
Tresca Industries, Inc. • Turf Merchants Inc. • United Horticultural Supply
Van Waters & Rogers, Inc. • Vigoro Industries, Inc. • Walt Disney World
Zaun Equipment Co.

1996 GOLD SPONSORS

Atmospheric Industries • Brookside Laboratories • Cybertech
Douglas Fertilizer Inc. • Dow Elanco • DuCor International Corp
Gold Kist, Inc. • Golf Agronomics • Golf Forms • Golf Specialties
Green Releaf • Green-Way Home & Commercial Irrigation
Humate International • Landirr • Lykes Agri Sales • M & A Services
Parkway Research Corp. Quality Grassing & Services Inc. • Rain Bird
Standard Sand & Silica • Valent U.S.A. Corp.

COVER STORY

All In



The infamous 12th hole at Colony West. 452 yards. Par 4. Photo by Daniel Zelazek

The Family

BY JOEL D. JACKSON, CGCS

When incoming FGCSA President Dale Kuehner, CGCS listed "From birth to 1988 - Seven Springs Country Club" as his first job experience on my interview questionnaire, I knew this wasn't going to be a typical story!

Forty-five years ago Dale's grandfather, Edward Rack, built Seven Springs Country Club in Elizabeth, Pa., a town 40 miles southwest of Pittsburgh. Rack was an excellent amateur golfer in his day and he competed against another western Pennsylvanian of that time, a fellow named Arnold Palmer. Palmer followed in Rack's footsteps some years later and built a few courses of his own.

From the very beginning, the entire Rack family was involved in staffing and operating the club.

"As a kid, I did everything from kitchen cleanup to being a range rat picking up and cleaning balls to manning the 'weenie hut' on the par 3 course on rainy days to sell a random greens fee or hot dog to a hard core golfer!" Dale says.

Dale loved the outdoors and he came into his element as a teenager when he was old enough to operate the equipment. When pressed for any unusual anecdotes of growing up on a golf course,

Dale did share one story from his teens.

"One Saturday, my cousin and I were mowing greens in the dark getting ready for a shotgun tournament. He developed a hydraulic leak and striped an entire green. As soon as we discovered it, we raced back to the shop and got some detergent and we saturated the stripes and then we began scrubbing and watering it in. By dawn's early light there was a huge foam ball oozing down the approach and fairway. It was quite a sight!"

Dale's aptitude and interest in grooming the Seven Springs course began whet-

ting his appetite for more information.

Merle Smith, a Toro sales rep for the E. H. Griffith Company in Pittsburgh was the source of most of the advice and information the family used to manage the turf. In those days, the E. H. Griffith distributorship sold everything from equipment to fertilizers and chemicals. Dale would ask all the "what," "how," and "why" questions he could think of.

When Smith wasn't around, Dale would seek answers from a neighboring superintendent, Tom Fox. It was these two gentlemen who steered Dale to Penn

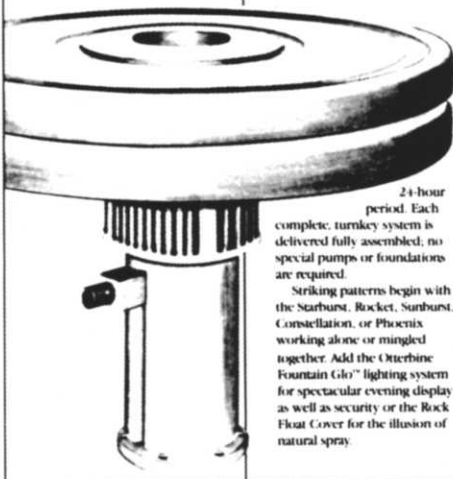
One Saturday, my cousin and I were mowing greens in the dark... He developed a hydraulic leak and striped an entire green ... we saturated the stripes (with detergent) and began scrubbing and watering it in. By dawn's early light there was a huge foam ball oozing down the approach and fairway!

Troubled waters?

Otterbine Aerators

The prescription for troubled breathing, poor circulation, and changing temperatures in ponds and lakes is practical engineering that is esthetically pleasing.

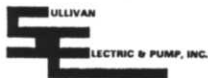
These aerators range in power, circulating from 600,000 to 20 million gallons of water in a



24-hour period. Each complete, turnkey system is delivered fully assembled; no special pumps or foundations are required.

Striking patterns begin with the Starburst, Rocket, Sunburst, Constellation, or Phoenix, working alone or mingled together. Add the Otterbine Fountain Glo™ lighting system for spectacular evening display as well as security or the Rock Float Cover for the illusion of natural spray.

Otterbine Aerators meet the water management needs of golf courses, parks, recreational lakes, office developments, and residential condominiums. Call or write for more information:



(561) 588-5886



South Florida Turf Products

INC.

1-800-432-2214

1-561-746-0667

**Distributors for
Howard Fertilizers**

**QUALITY FERTILIZERS & CHEMICALS
FOR THE TURF INDUSTRY**

1800 Central Blvd.
Jupiter, FL 33458

Introducing New Daconil Weather Stik™ Fungicide. It Outsticks The Flowable Competition For Top Disease Control.

High magnification microscopy shows it. And laboratory wash-off studies, too. New Daconil Weather Stik fungicide sticks and stays like the competition can't. So when other fungicides might wash away, you can continue to count on Daconil Weather Stik for control of major turf diseases on both warm and cool season grasses. That includes Brown patch, Leaf spot, Melting out, Dollar spot, Anthracnose, Rust, Red thread, and Snow mold. Plus control of most ornamentals plant diseases and algal scum, too.

In addition, Daconil Weather Stik can be tank-mixed with a wide range of turf and ornamentals fungicides, so you can also count on it for broad-spectrum support of your systemics, as well as disease resistance management. Remember, there's never been a documented case of disease resistance to a Daconil brand fungicide in over 25 years.

And Daconil Weather Stik is more concentrated than prior formulations, so you'll have fewer jugs to get rid of, too. Which simply says from better protection to easier disposal, Daconil Weather Stik is the right flowable choice for you. ISK Biosciences Corporation, Turf & Specialty Products, 1523 Johnson Ferry Road, Suite 250, Marietta, GA 30062.



ISK BIOSCIENCES™



Hole #6. 403 yards of water down the right side. Photo by Daniel Zelazek.

State to formalize all this education and to broaden his knowledge of the business.

Dale began as an agronomy major, but changes in the family fortunes would alter these plans temporarily.

As the family grew and the course was successful, Rack saw the need to expand. He was an equity member at the Colony West Country Club in Tamarac and it was going through some difficult times.

After concluding successful negotiations with the membership, Rack purchased the course and his family split up the duties of running both courses. Dale's mother, brother, sister and uncle operate Seven Springs in Pennsylvania, and Dale (superintendent) along with another uncle (GM) and cousin (head pro) operate Colony West.

Colony West has its own place in history.

The Championship Course, designed by Bruce Devlin and Robert Von Hagge,

was built in the late 1960s and was slated to be the site of the first Jackie Gleason Classic. It was also going to be the first 18-hole televised golf tournament and miles of cable were being laid during construction.

But financial problems arose and partners Ken Behring (current owner of the Seattle Seahawks) and Gleason parted ways, selling the property to Leadership Housing, which built condominiums around the course. Later, dissatisfied members from Inverrary bought the golf course and started a private club which led eventually to the Rack purchase.

The Championship Course has been rated by *Golf Digest* as the 16th toughest layout in the state.

Eager to complete his formal education, Dale returned to Penn State during the first winters in Florida and completed the Turf Management Short Course, graduating in 1988.

It was a real concern for Dale to prove

himself worthy and qualified to fill the role as superintendent. He did not want the job strictly because of family ties.

During that time he received a lot of advice and guidance concerning the turf business from Dr. Joe Duich. Dale credits Dr. Duich for giving him a perspective that allowed him to channel his youthful enthusiasm and independence into a more patient approach to the family business.

After graduation and marriage to wife Cindy, Dale found his grandfather more willing to accept his ideas and suggestions and that gave Dale a feeling of finally coming into his own.

Dr. Duich also told Dale to look up a couple of Penn State alumni in South Florida—Tom Burrows and Ray Hansen. They encouraged Dale to join an FGCSA chapter and get involved. Their friendship and mentoring opened up a world of problem-solving information, practical help, loaner equipment and—best of all

Push all the right buttons when training your crew.



Seeing is believing. Use the **"Superintendent's Video Workshop"** to improve your staff training! It's the **ONLY** hands-on video training series designed **EXCLUSIVELY** for superintendents and their staff.

Video training provides consistency and better retention, each employee gets exactly the same lesson. Videos can be watched again for a mid season refresher, and is a great way to wait out a rain storm. Testing and sign-off sheets provide written documentation for your training records.

Employee training topics range from the basics, such as **"Crew Etiquette"** and **"This is a Golf Course"** to the advanced, such as **"Safe Pesticide Handling"** and **"Cup Cutting and Bunker Maintenance"**. Kits include 18 training workbooks, tests, sign-off sheets and an instructor guide - all in a clamshell binder.

We also cover Management and Golfer-related topics such as **"Bringing out the Best in the People You Manage"** and **"Turf Etiquette"**. Kits come with appropriate brochures, worksheets, posters, etc. All kits are \$79.95 and have a 14-day day no obligation trial period. So start pushing those buttons today!

Call **1-800-938-4330** now for our **FREE** catalog, or to place an order.



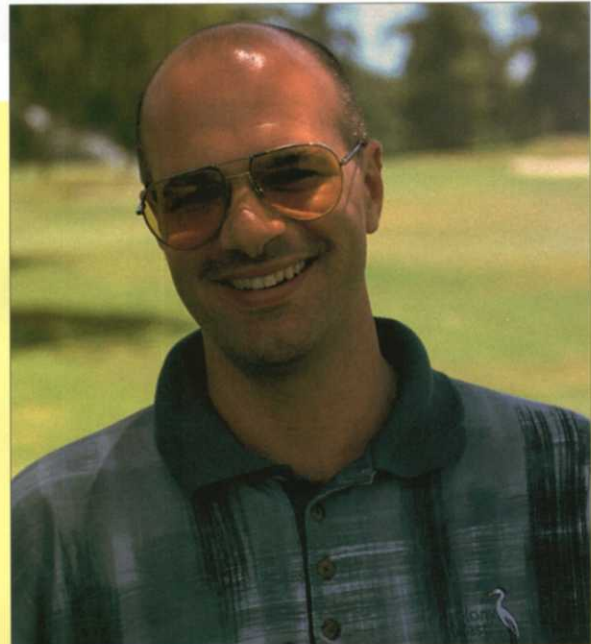
SVW
SUPERINTENDENT'S VIDEO WORKSHOP

EPIC
OF WISCONSIN, INC.

A production of: EPIC of Wisconsin, Inc.

600 East Progress Drive • West Bend, WI 53095-5247 • Tel 414-338-3700 Fax 414-338-9737

Dale Kuehner, CGCS



Dale Kuehner, CGCS. Photo by Joel Jackson.

Originally from: Elizabeth, Pennsylvania. Southwest of Pittsburgh.

Family: Wife - Cindy

Education: Penn State Turfgrass Management School. Graduated 1988.

Employment History: From birth to 1988 worked at family owned and operated Seven Springs Golf Club. 1988 to present, Superintendent Colony West C. C.

How did you get into the business? My family has owned and operated two golf courses. Seven Springs G. C. in Pennsylvania and the Colony West C. C. in Florida.

People in or out of the industry who have influenced your life and career: Mr. Merle Smith, Toro sales rep for E. H. Griffith, Co. in Pittsburgh. Superintendent Tom Fox who convinced me to attend Penn State. Dr. Joe Duich, the Penn State legend who gave me lots of sound advice about the business. Former superintendents, Penn State grads and FGCSA presidents Tom Burrows and Ray Hansen who were models of professionalism and association involvement.

Goals/Accomplishments: Returning to Penn State as a speaker for the Annual Turf Conference. Topic: Quality Public Golf North and South. Serving the FGCSA in the various chairs of the board.

Advice to prospective and new superintendents: It's easy to get burned out in this business. It's even worse to rust out. I'm always trying to learn something. A different slant on problems and possible solutions. I stay in touch with my peers. I find them the greatest source of help from information to sharing equipment. Continuing education helps me get out of any ruts I've fallen into. Monthly meetings, conference seminars and peer networking educate, energize and motivate me to renew and improve my performance.

Professional affiliations: South Florida GCSA all offices, FGCSA all offices, GCSAA Voting Delegate for Florida.

Hobbies: Computers & Computer gaming. Winter Sports, especially skiing.

(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

YOUR "ONE-STOP" SOURCE
FOR AMERICA'S LEADING
GOLF SURFACES & SUPPLIES!

PARTAC®
GOLF COURSE
TOP-DRESSING



HEAT TREATED

FLEXIBLE GOLF COURSE MARKERS
TURF DRAG MATS & BRUSHES
SAFETY FENCING & BALL NETTING

TYPAR®
GEOTEXTILES & TURF BLANKETS

Terra-Green®

THE POROUS CERAMIC
SOIL CONDITIONER

NEW PARTAC® NEW
COLORED CERAMIC
GREEN SAND
DIVOT REPAIR MIX
PARTAC® GREEN SAND BLENDED
WITH PARTAC® PREMIUM
TOP-DRESSING FOR EXCELLENT
GERMINATION AND
DEEP GREEN COLOR!

THE BEST DIVOT REPAIR MIX AVAILABLE!

AVAILABLE NATIONWIDE
800-247-2326
IN N.J. 908-637-4191

PARTAC PEAT CORPORATION
KELSEY PARK, GREAT MEADOWS, N.J. 07838
ORLANDO (FL) MEMPHIS (TN) RENO (NV)

HIGHLIGHT GOLF HOLES,
IMPROVE VISIBILITY,
& MAINTAIN CONSISTENCY

U.S. GOLF HOLE
TARGETS™



ACCU-TECH™
PRECISION CUP CUTTERS

TerraFlow™
Drainage Systems

AND MANY MORE
GOLF SPECIALTY PRODUCTS



United Horticultural Supply™

**Call UHS for all your fertilizer, seed and chemical needs.
The leaders in environmental services and information.
1-800-457-0415**



UHS distributes proven turf and ornamental products from Zeneca.

REWARD®

- For aquatic and grounds maintenance weed control
- Fast-acting, non-restricted herbicide

Scimitar®

- Superior turf and ornamental insect control
- Available in WSP or new CS liquid
- Registered for golf course use

CRUSADE®

- Excellent grub and mole cricket control
- 99% dust-free formulation

FUSILADE®

- Fast-acting: Annual and perennial grasses stop growing within 48 hours of application
- Can be applied over-the-top for economical, trouble-free grass control

— a circle of professional friends who had the same or similar lifestyles.

“In this business you can burn out real fast or rust out if you stagnate and withdraw into your own narrow little world,” Dale says. “I can’t count the number of times a phone call or visit with fellow superintendents casually or at meetings has given me the answer or at least a better understanding of a current problem.”

This fall finds Dale passing on the gavel as president of the South Florida Chapter and accepting the same as president of the State Association.

“I will always stay involved on committees even when my official board duties are over,” says Dale.

“The excitement and motivation I get when I attend conferences and meetings helps recharge my enthusiasm for the

business. Superintending can be tough, especially in periods of bad weather. These breaks at conferences, surrounded by professionals, sharing shop talk, learning new ideas, seeing new products and techniques is like a tonic when you’re weary.”

After one conference his old adviser, Dr. Duich, asked Dale if he would return to Penn State and speak at their Annual Turf Conference. Dale was mortified at the thought of public speaking, but he owed so much to Dr. Joe he couldn’t refuse.

“How long?” Dale asked. “Oh, just an hour to an hour and a half,” said Dr. Joe. Dale’s topic was “Quality Public Golf North and South.” He survived. He had come full circle at Penn State.

He has other fond memories of Pennsylvania as he recalls Pittsburgh’s pro athletes from the Steelers, Pirates and

Penguins escaping the glare of publicity to hang out and play golf at Seven Springs. When in South Florida, they also stop by Colony West.

Dale showed me the “wall of fame” in the clubhouse lined with autographed pictures of Pittsburgh stars and said, “When Mean Joe Greene was coaching for the Dolphins, he was a regular here. Many of the former players still come by whenever they are in the area.”

Dale’s conference topic wasn’t a desperate choice to fill the time, either. Public golf is the mission of Colony West.

“We strive to provide a course that will appeal to golfers looking for high-end quality that is still affordable. The price of belonging to some private clubs is becoming prohibitive. We think we can fill a niche that is growing in golf,” he says.



View from behind the 413 yard 2nd hole. Photo by Daniel Zelazek.



Terra® Thaloniil™ Test Results.

Only one thing matters when it comes to fungicides. Results. And Thaloniil™ delivers top results. In university trials, Thaloniil performed as good as, or better than, the competition. Research shows Thaloniil sticks, protects and has superior

handling characteristics. Use Thaloniil for dollar spot, leafspot, brown patch, snow mold, algae scum and many other diseases. You'll get the performance you need from Thaloniil. The proof is in the results.



Terra® Thaloniil™ Top Results.

Since Thaloniil's™ introduction, turf professionals have used it with confidence, knowing they'll get the results they need. Today, Thaloniil is the choice for excellent disease control in turf. Results still don't lie. Thaloniil works in tests and in turf management programs.



Results Don't Lie.



4144 Paul Buchman Highway
Plant City, Florida 33565
(813) 752-1177

Always read and follow label directions. Trial results summary available upon written request.

Laserturf LEVELLING

Setting the Standard

**Laser Controlled Leveling
and Top Dressing for:**

- Golf Tees
- Sportsfields
- Tennis Courts

**Call Your Leveling
Experts:**

- Dale Witting - Main Office
561-692-3771
- Ken Andersen - West Coast
941-743-3956
- Gary Clemmor - East Coast
561-692-3771

**P.O. Box 2179
Palm City, Fl. 34991**

TURFGRASS PROBLEMS?

Why?

- Soil Conditions?
- Soil Fertility?
- Unavailable Nutrients?
- Drainage?
- Grass Quality?
- Irrigation Water?

TOM BURROWS:

Agronomist/Turfgrass Specialist

Consulting: Turfgrass • Soil •
Tissue • Water • Physical • Plus
USGA or Reconstruction of
Greens

Certified Brookside Lab
Consultant

36 Years Experience
Jensen Beach, Florida
Ph: (561) 692-1221



The Colony West golf course maintenance staff. Photo by Joel Jackson.

Colony West Country Club

Location: 6800 NW 88th Ave, Tamarac, Florida.

Ownership: Edward Rack Corporation.

Playing policy: Public.

Management Team: Clubhouse Manager, Norm Rack; Head Golf Professional, Craig Rack

Designed by: Bruce Devlin & Robert Von Hagge . 36 holes. Championship Course — Par 72 at 7,271 yards. Glades Course — par 65 at 4,207 yards.

Course/Slope/rating: Championship Course: Gold — 75.8/138; Blue — 73.9/135; White — 71.8/130; Red — 71.6/127.

Acreage under maintenance: 285 acres.
Waterways — 20 acres.

Championship Course/Glades Course Greens: 3.5/2.5 acres. Average size — 6,800/5,700 square feet. Turf type — Tifdwarf. HOC: Winter — .140 - .156. Glades — .170. Summer — .156" - .180". Glades — .180" - .200". Overseeding: Both — Poa trivialis @ 10 pounds per 1,000 square feet.

Championship/Glades Tees: 4/2 acres. Turf type for both — Tifway 419. HOC for both: Winter — .56". Summer — .43". Overseeding both — 30 pounds per 1,000 square feet of perennial ryegrass.

Championship/Glades Fairways: 32/45 acres. Turf type both — Tifway 419. HOC both: Winter — .56". Summer — .43". No overseeding.

Championship/Glades Roughs: 68/30 acres. Turf type — Tifway 419 and Common Bermudagrass. HOC — 1.5"

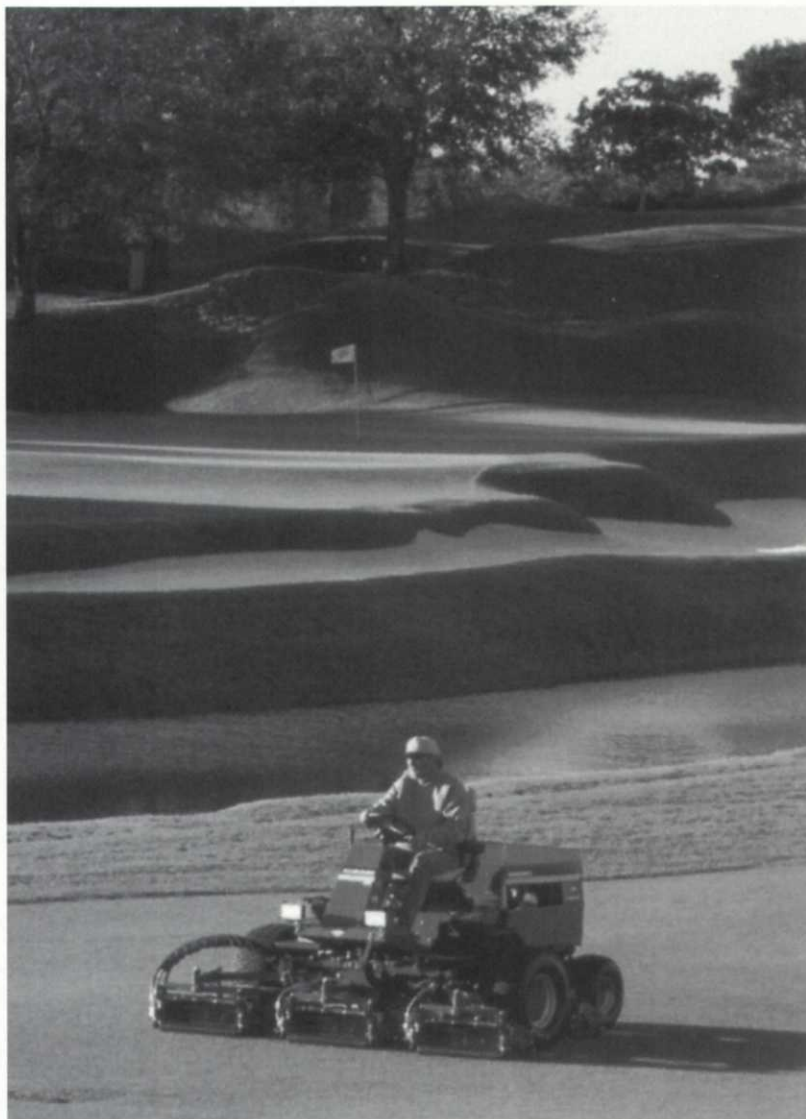
Irrigation: Source — surface water (lakes). Equipment: Championship Course — Two 100 hp vertical turbine pumps with one 25 hp jockey pump. Glades Course — One 100 hp vertical turbine pump with one 15 hp jockey pump. Controls: Championship Course — 30 Rainbird M5C Satellites. Glades Course — 18 Rainbird 15C Satellites. Rainbird Nimbus Computer 545 Central Controller.

Staff: Total of 21 including superintendent, Assistant superintendent, Gary Chaney. Head equipment technician, Duane Laney. Pest Control Techs, Dick Cline and Mike Wilson. Irrigation Techs, Steve Peraza and Brett Miller. Admin/Clerical, Cindy Kuehner and Nancy Rack.

You've had to change
the way you maintain
your fairways to reflect
new, higher standards
of quality. We know
your equipment needs to
be up to the challenge.

Lease a
Ransomes
305
for \$29.12 / Day
42 Months
2.79% APR

Ransomes® Fairway Mowers.



Today's fairways demand a level of quality that was formerly reserved for greens. To meet these higher standards, superintendents have found a reliable, productive ally in the Ransomes® family of fairway mowers. The T-Plex 185 is perfect for highly visible tees and collars. The 250, 305 and 7-plex 405 are the industry's only "right" weight mowers. The 405 features a wide 156" cutting swath while the new 3500 is a production powerhouse. Ransomes mowers have been designed to maintain the same perfect finish from one side of the fairway to the other. When you start with Ransomes reel mowers, you finish with the best. Call the dealer nearest you for a free demo.



RANSOMES
CUSHMAN
RYAN

Driven to be the best.



Lakeland • (800) 330-8874
Ft. Myers • (800) 481-8911



Jupiter
(407) 746-5321

Avoid the bunkers on the par 3 17th hole and you're almost home. Photo by Daniel Zelazek.



•TURF TRACER • FOAM GARD • RUST BUSTER • BEAUT/ GREEN • PENETROL • KICK IN THE GRASS • TURF IRON • SUPER WET • EV R GREEN

ALMAR

Quality
Service
Economy

CHEMICAL CO. INC.

P.O. BOX 290415
TAMPA, FL 33687

CALL
800-900-6444

STUART COHEN
EAST FLA.

RUSS VARNEY
WEST FLA.

•TURF KOTE • WATER PENN • GREEN MASTER • SCRAM //

Aquatic Management

- ✓ Friendly, professional service
- ✓ Competitive pricing
- ✓ Certified, degreed biologists
- ✓ Fast response time
- ✓ Guaranteed compliance
- ✓ Over 16 years of statewide service

The Lake Doctors, Inc.

1-800-666-5253

Colony West, like many public golf courses, tries to accommodate play as early as possible. With a 7:00 a.m. noise ordinance in effect, getting the course prepared for early morning shotgun tournaments requires constant and accurate communications with the pro shop!

Dale spoke about another challenge he faces managing the 285 acres under his domain.

"We are located in a Broward County well field. For the past 11 years we have undergone an annual site inspection for pesticide storage procedures. We have to submit quarterly samples from the two on-site monitoring wells. In all that time we have had one hit for arsenic levels. We initiated independent testing to find the source and the final conclusion was, 'Area soils naturally higher in arsenic content'."

On a lighter side, the Rain Bird Corporation uses Colony West as one of its Florida test sites so Dale gets his hands on new equipment from heads to controllers. We were riding around during my visit and Dale was turning zones on and off to water around golfers with his handheld unit — a new tool envied by all of us who don't have line-of-sight control of our irrigation.

Somehow we have to build a bridge to the owners over the sea of apathy that separates us so we can get their support for our lobbying efforts on behalf of golf.

On a philosophical note, Dale talked about the state of golf in Florida.

"Just look at Myrtle Beach, South Carolina! They market the entire area. They're united and it pays off.

"I don't know what it will take to be able to do something like that in Florida.

My uncle originated a First Union Bank MasterCard with golf discount privileges up to 40% in special walk-in vacancy situations and 20% in call-ahead reservations.

The clubs that initially participated couldn't even manage to train their point-of-sale people that the special existed and it never really grew into a strong marketing initiative. Somehow we have to build a bridge to the owners over the sea of apathy that separates us so we can get their support for our lobbying efforts on behalf of golf."

Dale also touched on job security.

"I realize I am in a unique position, but I am nonetheless concerned for the industry. I was talking to Tom Mascaro not long ago, and he has a long career to draw from. He sees changes more as recurring cycles that often hit the industry. Involved, dedicated, educated, progressive professionals will always have a better chance of survival no matter who is in charge of the club."

The Colony West acquisition by his family has allowed Dale to rightfully earn his spurs as a certified superintendent.

Howard Fertilizer — Your Single Source for Organic Turf Products



Howard has a big family of organic products to solve your tee-to-green problems. New products like Synzyme to restore worn turf... Karbonite, the 2-3 month release fertilizer that's high in potassium and low in salt for a healthier, stronger turf. Time-tested products like Milorganite — the 100% organic, slow release fertilizer that conditions soil and promotes rapid root development. For a complete listing of organics - call your Howard representative.



Contact your Howard Fertilizer representative for a sample to test on your golf course.

Howard's
Premium Quality Fertilizer

407-855-1841 800-899-3141

General Offices and Plant, 8306 South Orange Avenue, Orlando, FL 32809

Sometimes casual family gatherings or even holiday gatherings can turn into impromptu board meetings. But no matter what is discussed or when it is discussed, one thing is for sure. It's all in the family.



The 10th hole is the shortest par 4 at Colony West, but a sharp dogleg and green side bunkering keep applying the pressure. Photo by Daniel Zelazek.

Turf Trivia

Water Purification and Conservation

The biology of turfgrass soils makes lawns a near ideal medium for the biodegradation of all sorts of environmental contamination. The soils are active in purifying the water as it leaches through the rootzone and down into underground aquifers. Soil microbes associated with turfgrass cover help break down chemicals, including turf pesticides, into harmless materials.

As the population of an area increases, more impervious surfaces are constructed like streets, driveways, parking lots and roofs, and as a result, the rate of surface runoff increases and the time elapsed before runoff occurs decreases. A thick healthy lawn reduces runoff "to next to nothing."

A high quality turf will buffer loss of nutrients in runoff water or in the leachate. When effluent water is used on turf, the water is cleaned and this is a tremendous benefit to our environment. Ten percent of U.S. golf courses are already using effluent waste water for turfgrass irrigation. This reclaimed water by law cannot be returned to most municipal water supplies nor released into streams, lakes or oceans. Turfgrass therefore helps recycle this water into the environment.

Turf fertilization has resulted in unfounded accusations against lawns when nitrates are found in nearby ground water. Growing grass plants absorb most fertilizer nitrogen almost immediately, or, in the case of slow-release fertilizer, the nitrogen remains immobilized in the sod for gradual feed-out. Tests of water seeping through sod show that very little in the way of applied nutrients escape the grass itself.

Groundwater recharge is an important benefit of turf. An acre left in open space provides an average of 600,000 gallons of recharge per year. An average golf course of 150 acres will recharge the water table with a net of 90 million gallons of rainwater and snowmelt a year allowing for evaporation and transpiration. Consumption of water by a golf course of the same size would be about 9 million gallons.

**We'd like to say we buried the competition.
But that would mean putting an extremely
inferior fertilizer in the ground.**



**Only par ex with IBDU® has the highest WIN percentage.
We have more than Lebanon* and more than Scotts*. Because the
higher the Water Insoluble Nitrogen content, the longer your turf
will remain green and the less chance there is for burn.**



IMC Vigoro

FROM FERTILE MINDS.

*Lebanon is a trademark of Lebanon Seaboard Corporation. *Scotts is a trademark of O.M. Scotts & Sons Co. © 1996 IMC AgriBusiness Inc. All rights reserved.

Contact your IMC Vigoro representative:

Tom Cowan, North Florida, 904-733-3292
Lee Crosby, Central West Coast, 800-282-9588
Robert Toski, Southwest Florida, 941-250-2000
Greg Cotton, Southeast Florida, 305-614-4100

Stan Hildreth, East Central Florida, 407-353-4133
Vicki Flynn, Polk County, 941-293-3147
Sondi Stanfield, Customer Service Representative,
800-282-9588

Equipment Maintenance Programs: People and Their Machines

Undeniably, people are the most important ingredient in a successful operation. Coming in a close second is the equipment these people use to groom a golf course. How we organize, house, purchase, operate, and care for the equipment also plays a crucial role in the overall success of our operations. I was hoping for more details on cutting-unit maintenance, but we'll visit that topic in more detail when we discuss mowing practices in coming issues. For your consideration in this issue, several superintendents and equipment managers have shared their thoughts and practices on organizing their overall programs.

Joel Jackson

Best Practices

BY JOE EAGLE

Shop Manager, Quail Ridge C.C.

Preview - I am basically new to the golf course business, although my background is in the equipment field as well as in teaching continuing education courses at Palm Beach Community College. This may sound like a strange mix. Stay with me.

I applied for the chief mechanic position at Quail Ridge Country Club in Boynton Beach in January 1995. During the initial interview I was told that they had combined the POA (Property Owners' Association) and Country Club maintenance operations, and it needed some help.

Step One - Assess the total layout and highlight inefficiencies to create a work flow. The operation was in desperate need of a complete overhaul. This is a practice that I do on a monthly basis now, just tweaking the system where needed. After developing a plan of action I spent time with the superintendent to get his views of the whole project. In addition, I welcomed input from other department heads of the POA. My plan seemed logical to me even though it appeared there were reservations on the part of most others. I wanted their thoughts, not their approval or disapproval.

Step Two - I created a business atmosphere in my office. I am there first as the shop manager — a leader for others — and last, a mechanic/technician.

Step Three - The employees of the maintenance department and I sat down

several times over the next two weeks to discuss past problems, including employees outside of the shop, department heads, spending constraints, equipment, responsibilities and my tentative plans for the future of the combined operation. Change does not come easily.

Step Four - I started putting my plans to work and kept a diary of positives and negatives for the first year. Questions and inquisitions would arise. The diary was a great source for helping department heads and employees see past situations and solutions. We moved on.

Step Five - Six months after these plans were enacted, my technicians and I had another roundtable discussion. We had worked very hard to get past attitude problems and work schedules and bring the equipment to a dependable and presentable level. All 437 pieces of it. No small task for myself and four others. We were now in a day-to-day routine that needed to move on. A PM schedule was finally hammered out and implemented. A PM schedule is simply a requirement of a good working atmosphere.

The figures justify the expenses in creating the atmosphere of fair workloads, operator comfort and eliminating over time requirements in all areas due to efficiently performing equipment. Most importantly, we got a true handle on expenses.

With the operators' needs now being taken care of at a rapid, pit stop fashion, we were able to shift a great deal of problem prevention back to the operators. Checking fluids on a per use basis, lubricating all fittings as needed on a per use

**Full-floating single-reel pick-up,
non-scalping, high-lift
hydraulic dumping,
big full-loading hopper.
Picks up everything, everywhere.**



Sweep Star 60



GASOLINE OR DIESEL POWER



HYDRAULIC HIGH-LIFT DUMPING

SOLD AND SERVICED BY:

KILPATRICK TURF EQUIPMENT
901 Northwest 31st Avenue ■ Ft. Lauderdale, FL 33311
Telephone: 305-792-6005 ■ Fax: 305-584-5831

TIECO/GULF COAST
540 W. Michigan Avenue ■ Pensacola, FL 32505
Telephone: 904-434-5475 ■ Fax: 904-434-2786

TRESCA INDUSTRIES
4827 Phillips Highway ■ Jacksonville, FL 32247
Telephone: 904-448-8070 ■ Fax: 904-448-2725

3930 N. Orange Blossom Trail ■ Orlando, FL 32804
Telephone: 407-291-1717 ■ Fax: 407-297-6166

6025 Highway #301 ■ Tampa, FL 33610
Telephone: 813-621-3077 ■ Fax: 813-620-0303



ALWAYS OUT FRONT
SMITHCO
WAYNE, PENNSYLVANIA 19087

basis and being responsible for the machines' daily cleaning and storage were now delegated to the operator.

At about the six month period, a work order and central inventory system was re-created to put accountability on my technicians for the hours worked, repairs made, come-back prevention and accountability for parts used. A rebuilding program for accessories and main units was now also in place so rebuilt spares were available more frequently and down time was at a minimum.

A truth of nature came about because of the involvement of all concerned. Valued input by the technicians was utilized in the business plan appraisal, shared by all, then adopted or temporarily sent back to the drawing board. By not being run by a dictator who expects clones, but instead uses sound business and people

skills, the shop gets better all the time.

I expect each technician to do their job without being constantly watched over. I expect each technician to communicate with me at all times when any doubt arises pertaining to his work environment, machines, supplies, other employees or his benefits as an employee of Quail Ridge. I try to keep all promises whether they are promises of information, those requiring disciplinary action or promises to procure the necessary items to create and maintain a productive atmosphere.

The shop runs well because it must. The reels cut well and machines work as they should because of the teamwork that is the outcome of technicians knowing their job requirements, expecting quality and giving them the ability to do the best that they can. I educate with a

constant back-to-basics approach. Keep it simple, be safe and enjoy your day. The department heads have the opportunity to do what they need to do, and the superintendent can concentrate on growing grass and giving me an equipment needs list with the Height Of Cut requirements.

At budget time, I share with him my thoughts for replacement of certain equipment, and he shares his wish list with me. Last year we were able to convince the powers that be to put together a contingency fund for major rebuilds or special needs that could not be forecasted. This fund has worked well in protecting the allocated budget. This interaction has built trust and appreciation for each other's job requirements. In the end, it is a true win for each of us.

Duties, Record Keeping and Training

BY MIKE SWINSON, CGCS

Cypress Run G.C.

Operator Responsibilities

The equipment operator is responsible for checking all fluids — fuel, oil, coolant and water. These are the levels that are to be checked daily. Rear ends, differentials and some cooling levels are checked only by the mechanic at their scheduled intervals unless an operator suspects a leak. The equipment operator is also responsible for the greasing of all the rollers, pulleys, etc. that are to be greased on a daily basis. The mechanic must be informed immediately of any problems whatsoever of the machine. Good communication between the mechanic and the operator about the machine's performance is essential. They can prevent accidents before they happen. After completing their work assignments the equipment operator cleans his/her machine with an air hose, followed by a complete rinsing of the machine with water. The equipment is then returned to the shop clean — the way it left.

Equipment Records

All of our equipment has an identification number. That number is on a master equipment inventory sheet that lists the date of purchase, equipment name, purchased new or used, and the supplier's name. This is useful for the depreciation of our equipment along with inventory control and cost of repairs. A copy of this list is supplied to the superintendent, head mechanic and secretary. Our procedure works as follows: The mechanic fills out a work order for repair parts that are needed. He dates the work order and puts the identification number for each part that is used for that particular machine. The work order goes to the secretary who calls the main office for a purchase order (P.O.) number. That number is then used for the mechanic's work order. After typing the P.O. and placing the order (blue copy), the superintendent then signs the order as the purchasing agent and turns it into the main office. The main office then types a gold P.O. which is an exact duplicate of the blue copy. The gold copy is then sent to the superintendent. After the parts arrive, the assistant superintendent checks all the packages against the packing slip and the original purchase order. If all is in, he dates and signs the packing list. The

packing list is then given to the secretary who attaches all the receipts behind the gold copy. Quantities and the date received are then written on the gold copy along with comparing the receipt price against the original purchase order price. The gold copy, along with any discrepancies, is turned over to the superintendent for final approval. After signature approval, the gold copy is turned in to the accountant.

The secretary keeps a log for each piece of equipment in our computer. Each repair part is then charged to a particular piece of equipment. This is very helpful when you are trying to get approval for new equipment; you can show what the repair cost is, not including labor, for any specific time frame. This also helps you with your budget preparation for the following year. Each year you have a record so that you can start a data base which will help you with the equipment's life expectancy. The head mechanic also has an hour meter log that will help in the data base.

Operator Training

Equipment operators are educated with training videos about the correct operation of the machine. Operators are also required to read the owner's manual

LASER

Poa trivialis

IS PROVING ITSELF...

Over

At Arnold Palmer's Bay Hill Club, Orlando, FL
"I've been overseeding with 100% Laser since it was first introduced. Now I wouldn't use anything else. It really does an excellent job for us at Bay Hill." Dwight Kummer

and Over

At Buck Creek Golf Plantation, No. Myrtle Beach, SC
"Using Laser in conjunction with perennial ryegrass has enabled me to reduce the total poundage, counter the wear associated with heavy play, provide an ultra smooth transition in fall and spring, and provide our golfing guests with an outstanding putting surface. I've heard many comments such as, 'Best bent greens we've played here on the beach.'" John E. McWhite

and Over

At Bonita Bay Club, Bonita Springs, FL
"I have used Laser Poa trivialis for the last several seasons and I have been very pleased with its color, texture, establishment, spring transition and especially with its durability. It's definitely part of my future overseeding plans." Mark Black

and Over

At Grayhawk Golf Club, Scottsdale, AZ
"At Grayhawk Golf Club we use an 85/15 blend of Palmer II/Prelude III/Laser on our fairways, roughs, and tees. The high seed count of the Laser blend allows us to reduce our seeding rates and prep work while providing a superior playing surface compared to straight perennial rye." Mike Pock

and Over

At Lake Nona, Orlando, FL
"I normally utilize a 50/50 blend of bentgrass/Poa trivialis for my greens overseeding program. This year however, because our tournament schedule dictated a later overseeding window, I will use straight Laser Poa trivialis at a slightly higher rate. This will be the fourth year I've used Laser. During those years, we've experienced a variety of weather conditions and traffic challenges. Laser has consistently exhibited good color and the drought tolerance that is so important in achieving a smooth spring transition. That was the reason I tried Laser in the first place and it has performed very well." Ken Glover

and Over Again

At Hunter's Creek Golf Course, Orlando, FL
"For the past five years, we have overseeded our greens with straight Laser. Year after year, Laser has out-performed the other Poa trivialis varieties we've compared it against. It has consistently proven to have better color, quicker establishment, better disease resistance and better durability under high traffic. Laser produces an excellent putting surface. Our observations have convinced us that Laser is the superior choice of Poa trivialis." Craig A. Shelton



Tournament-quality greens are expected at **Arnold Palmer's Bay Hill Club**. Overseeding with 100% Laser every year helps Dwight Kummer meet those expectations.

Arnold Palmer
BAY HILL CLUB


BUCK CREEK
GOLF PLANTATION

Bonita
Bay Club
Bonita Bay Club


Grayhawk
GOLF CLUB


LAKE NONA


HUNTER'S CREEK
GOLF COURSE

Let Laser prove itself again...on your golf course.



Lofts Seed Inc.

World's largest marketer of turfgrass seed
Somerset, NJ 08873

Lofts/Great Western
Albany, OR
(503) 928-3100
(800) 547-4063

Lofts/Ohio
Wilmington, OH
(513) 382-1127
(800) 328-1127

Lofts/Maryland
Beltsville, MD
(301) 937-9292
(800) 732-3332

Lofts/Pennsylvania
Allentown, PA
(610) 266-6612
(800) 708-8873

Lofts/New England
Arlington, MA
(617) 648-7550
(800) 648-7333

Sunbelt Seeds, Inc.
Norcross, GA
(404) 448-9932
(800) 522-7333



and

TORO®

present...



Reelmaster® 6000 Series Fairway Mowers

The first family of mid size mowers delivering exceptional power, agility, productivity and quality of cut. Everything you need for picturesque fairways and superb playability. Even under the toughest turf conditions.



The Toro Reelmaster® 6000 series are the first true mid size fairway mowers.

You want your golf course to be exceptionally beautiful and playable. So you may be using one mower for thick, warm season grasses. And another during cooler months. Now with either Toro's Reelmaster 6500-D or 6700-D your turf conditions can be handled

all year 'round. The 6000 series are true mid size fairway mowers offering breakthrough technology, a consistently superb quality of cut and up to 10 acres per hour productivity.



Power Pack

Our 2 or 4 wheel drive Reelmaster 6500-D has a powerful 38 hp Peugeot diesel engine. It's ideal even for high altitude areas where most mowers lack reserve power.

The 6700-D comes with an extremely efficient 42 hp Peugeot diesel with standard 4 wheel drive. It generates energy that not only moves the machine but also drives its *seven* hydraulic cutting units. The 6 position joystick controls either 5, 6 or 7 cutting units for up to 11 feet of exceptional productivity.

Both models tackle heavy bermuda, zoysia, overseeded rye, bent and blue grass. Quietly. Measuring a super low 76 decibels at a distance of 25 feet.





Heavy Duty Reels

Toro technology is cutting edge. Exemplified by the 6000 series heavy duty 5 or 11 blade reels. All reels are interchangeable. All can be quickly changed from steerable to non-steerable. All feature single point reel to bedknife adjustment. In addition, they come with an exclusive self centering system to ensure proper tracking when reels are lowered.

Contoured Cutting

With the 6000 series you can count on a consistently fine quality of cut, due in large part to another Toro exclusive. Our L-I-N-K-S™

system. Its four bar floating linkage and individual lift arm dampers afford extraordinary contour following ability and reduces “bobbing” better than any other fairway mower. Another advantage



comes with Toro's Automated Control Electronics™ (ACE) system that automatically adjusts reel speed to mowing speed to maintain a consistent rate of clip. It can also be programmed to limit the maximum mowing speed.

Sense-ational Hydraulics

The Reelmaster 6000 series hydraulic system is state of the art. Toro's exclusive TurfDefender™ electronic leak detection system “senses” and alerts the operator to damaging leaks and minimizes false alarms that plague conventional systems.

Reelmaster® 6500-D and 6700-D Specifications

	REELMASTER 6500-D MODEL 03800, 2-WD OR MODEL 03801, 4-WD	REELMASTER 6700-D MODEL 03802, 4-WD																					
BRAKES	Wet triple disc brakes on front planetary assemblies may be actuated individually for service brakes or locked together for transport or parking brakes. Dynamic braking through hydrostatic traction drive.																						
STEERING	Power steering with dedicated power source.																						
CUTTING UNIT SUSPENSION	Equal length lift arms with the L-I-N-K-S™ suspension system.																						
SEAT	Deluxe seat with adjustable suspension and fore-aft location. Optional Armrest Kit, Model 30707.																						
ROPS	A 4-post ROPS with canopy and seat belt; standard on Models 03801 and 03802, optional on Model 03800.																						
OVERALL DIMENSIONS	<table border="1"> <thead> <tr> <th></th> <th>Height</th> <th>Length</th> <th>Transport Width</th> <th>Operational Width</th> <th>Wheel Tread</th> <th>Wheelbase</th> </tr> </thead> <tbody> <tr> <td>Models 03800/ 03801:</td> <td>60" (152 cm) w/o ROPS 84" (213 cm) w/ROPS</td> <td>120" (305 cm)</td> <td>84" (213 cm)</td> <td>110" (279 cm)</td> <td>70.25" (178 cm) - front 41" (104 cm) - rear</td> <td>58" (147 cm)</td> </tr> <tr> <td>Model 03802:</td> <td>84" (213 cm) w/ROPS</td> <td>120" (305 cm)</td> <td>84" (213 cm)</td> <td>147" (374 cm)</td> <td>70.25" (178 cm) - front 41" (104 cm) - rear</td> <td>58" (147 cm)</td> </tr> </tbody> </table>		Height	Length	Transport Width	Operational Width	Wheel Tread	Wheelbase	Models 03800/ 03801:	60" (152 cm) w/o ROPS 84" (213 cm) w/ROPS	120" (305 cm)	84" (213 cm)	110" (279 cm)	70.25" (178 cm) - front 41" (104 cm) - rear	58" (147 cm)	Model 03802:	84" (213 cm) w/ROPS	120" (305 cm)	84" (213 cm)	147" (374 cm)	70.25" (178 cm) - front 41" (104 cm) - rear	58" (147 cm)	
	Height	Length	Transport Width	Operational Width	Wheel Tread	Wheelbase																	
Models 03800/ 03801:	60" (152 cm) w/o ROPS 84" (213 cm) w/ROPS	120" (305 cm)	84" (213 cm)	110" (279 cm)	70.25" (178 cm) - front 41" (104 cm) - rear	58" (147 cm)																	
Model 03802:	84" (213 cm) w/ROPS	120" (305 cm)	84" (213 cm)	147" (374 cm)	70.25" (178 cm) - front 41" (104 cm) - rear	58" (147 cm)																	
NET WEIGHT WET	Model 03800: 3,200 lbs. (1,451 kg) with 5 blade cutting units and full fluid levels. Model 03801: 3,300 lbs. (1,497 kg) with 5 blade cutting units and full fluid levels. Model 03802: 3,800 lbs. (1,723 kg) with 5 blade cutting units and full fluid levels.																						
WARRANTY	One year limited warranty. Refer to the appropriate Operator's Manual for further details.																						
SOUND LEVEL	82 dB(A) under normal operating conditions.																						
CERTIFICATION	The Reelmaster 6000 series complies with American National Standards Institute (ANSI B71.4-1990) and European Community (CE) specifications with required kits and ballast installed.																						

HYDRAULIC SYSTEM

PUMP	A three section gear pump provides hydraulic flow to power the cutting units, power steering and cutting unit lift.
CONTROL BLOCKS	All hydraulic functions are controlled by two integrated hydraulic control blocks utilizing cartridge type relief valves, solenoid controlled proportional valves and solenoid operated directional control valves.
AUTOMATIC REEL SPEED CONTROL	Reel drive circuit is split into front and rear independent circuits with separate pump and valve control of each circuit. A separate proportional cartridge bleed valve is provided for each circuit. The ECU measures reel speed of each circuit from a sensor on front center and left rear cutting unit, traction speed from a sensor on the wheel motor and detects the desired clip from a potentiometer located under the control panel. The ECU then determines what duty cycle of voltage to apply to the proportional cartridge valve to achieve the desired clip (i.e., reel speed).
LIFT CYLINDERS	The front right and left units and the rear two units are raised by individual cylinders in separate series circuits. The front center unit and outer rear units on Model 03802 are raised individually. All lift and lower sequences are controlled by the ECU.
HYDRAULIC OIL RESERVOIR	100% of oil from reservoir passes through a 100 mesh suction strainer before entering the reel drive circuit. 8.5 gallon (32 liter) capacity.
HYDRAULIC OIL FILTER	11 gram cap at 10 gallon (37 liter) per minute flow Ave Beta = 20 at 3 micron. Filter head has integral 50 psi (3.4 bars) bypass and a true differential pressure service indicator.

5 AND 11 BLADE CUTTING UNITS

TYPE	Five 22" (56 cm) width cutting units; fully interchangeable. Front or rear discharge selectable with movable shield.	Seven 22" (56 cm) width cutting units; fully interchangeable. Front or rear discharge selectable with movable shield.
WIDTH OF CUT	96" (244 cm) total.	96" (244 cm) with 5 cutting units, 114.5" (291 cm) with 6 cutting units, or 133" (338 cm) with all seven cutting units.
HOC RANGE	3/8"-1 1/4" (9.5 mm-32 mm) height of cut range. Recommended use: 5 Blade—3/8"-1 1/4" (19 mm-32 mm); 11 Blade—3/8"-3/4" (9.5 mm-19 mm). Achieve 1 1/4"-3 1/4" (29 mm-79 mm) with High Height of Cut Kit, Model 03880.	
REAR HOC ADJUSTMENT	Quick height of cut adjustment mechanism in 1/8" (3.2 mm) increments with threaded micro adjust for finer adjustment.	
REEL CONSTRUCTION	Fairway reels. All welded construction. 7" (17.8 cm) diameter reels.	
REEL DRIVE	Reel motors feature quick disconnect for removal or installation onto cutting unit. Cutting units can be driven from either end.	
BEDKNIFE/BEDBAR	Single point adjustment mechanism, .0005 in adjustment per click.	
CLIP FREQUENCY	.375" - 1.25" (9.5 mm - 3.17 mm). Reel speed automatically adjusts to maintain proper clip. Reel speeds continuously calculated based on the current forward speed and the pre-set reel type and height of cut.	
ROLLERS	Front roller: 3" (7.6 cm) diameter Wiehle roller standard. Rear roller: 2.5" (6.4 cm) diameter Full roller. All rollers use the same heavy duty ball bearings with two conventional single lip seals and Toro labyrinth seal to provide four sealing surfaces to protect the bearings. Optional 3" (7.6 cm) diameter Full roller, P/N 93-3040, is available for the front position.	

ACCESSORIES

Model No.	Description	Model No.	Description	Part No.	Description	Part No.	Description
03854	5 Blade Cutting Unit	30707	Armrest Kit	94-2836	Rear Weight Kit	93-2962	Rear Roller Scraper Kit
03856	11 Blade Cutting Unit	03880	High Height of Cut Kit	85-4750	Hand Held Diagnostic Tool	93-2967	Front Roller Scraper Kit
03870	Thatching Reel						

* Specifications and design subject to change without notice. "Toro", "Reelmaster" and "Toro 4-Matic" are registered trademarks and "Automated Control Electronics", "ACE", "Data Log", "L-I-N-K-S" and "TurfDefender" are unregistered trademarks of The Toro Company, 8111 Lyndale Avenue South, Bloomington, Minnesota, 55420-1196. Products depicted in this brochure are for demonstration purposes only. Actual products offered for sale may vary in design, required attachments, and safety features.



COMMERCIAL PRODUCTS



♻️ Easy on the Environment. 50% Recycled Fiber - 10% Post Consumer.

Helping You Put Quality Into Play®



Operator Friendly

Operators like the Reelmaster 6000 series for its ease of control and tireless comfort. For its quiet operation. For its efficient ergonomic design with complete instrumentation package. For its single joystick control of all cutting units. Its

smooth hydrostatic transmission and a productive mowing speed of up to 7.5 mph. Up to 10 mph in transport. Cushioned, adjustable seating. Superb visibility. Seat belt safety and ROPS are standard with 4-wheel drive, optional with 2-wheel drive.



Easy Maintenance

By easy, we mean fast, simple access to all components. No tools required. An oversized hydraulic cooler tilts out 90 degrees for a clean sweep. A proven planetary traction drive system increases reliability as does its large rear air draw. Hoses are frame mounted for minimal wear. Cutting units are interchangeable. And our Data Log™ system helps to diagnose intermittent electrical problems.

Automated Controls

ACE™ (Automated Control Electronics) is yet another Toro exclusive that aids the mechanic in determining hydraulic versus electrical problems and quickly tests over 32 switches and circuits.

Legendary Longevity

You see many Toro old timers still on the job at golf courses everywhere. Maybe your own. That's because we build Toro durability and reliability into every Toro product, including the 6000 series. That means you can expect a long, productive service life. Without early retirement.

We're on Your Schedule

You bought the best equipment in the industry, so why not keep it that way. Using Toro original equipment parts is the only way you can be assured that your Reelmaster 6000 series will operate exactly as designed. You say you need your parts right away? Our parts are backed by the 24 Hour Fast Track delivery guarantee, or your parts are free*. No one in the industry can match the availability and delivery capabilities better than Toro and your local Toro distributor. Ask your distributor for more details.



*24 Hour Fast Track delivery is available in the 48 contiguous states and covers only parts supported by The Toro Company, Minneapolis, and does not include irrigation or certain engine parts. Program subject to carrier delivery restrictions.



Reelmaster® 6500-D and 6700-D Specifications*

	REELMASTER 6500-D MODEL 03800, 2-WD OR MODEL 03801, 4-WD	REELMASTER 6700-D MODEL 03802, 4-WD
ENGINE	Peugeot, 4 cylinder, 4 cycle, overhead cam, 116 cu. in. (1.9 liter) displacement, liquid cooled diesel engine. Model 03800/03801: 38 hp (28 kW) @ 2300 rpm; governed to 2500 rpm. Model 03802: 42 hp (37 kW) @ 2550 rpm; governed to 2750 rpm. 23.5:1 compression ratio, 3.27" (83 mm) bore x 3.46" (88 mm) stroke. Automatic glow plug controller. Heavy duty, 2 stage, remote air cleaner. Oil capacity is 5.3 quarts (5 liters) with filter. Optional Spark Arrestor Muffler, P/N 94-2849.	
RADIATOR	Rear mounted, cross-flow agricultural type radiator; 5 row, 7 fins per inch. Remote mounted, 1 quart (.94 liter), degassing/expansion tank. Cooling system capacity is 3.5 gallons (13.2 liters). Air to oil cooler with 2 rows, 6 fins per inch, mounted in front of radiator tips outward for cleaning. Removable oil cooler/radiator screen.	
ELECTRICAL FEATURES	12 volt, 650 cold cranking amperes at 0°F (-18°C), 105 minute reserve capacity at 80°F (27°C), maintenance free battery. 1.4 kW electric starter. 55 amp alternator with I.C. regulator/rectifier. Automotive type electrical system. Seat switch, reel and traction interlock switches.	
FUEL SYSTEM	Rotary fuel injection pump with integral energized-to-run (ETR) fuel flow solenoid. Replaceable spin-on fuel filter/water separator with water sensor. Fuel capacity: 15 gallon (64 liter).	
CONTROLS	Foot operated traction and brake pedals. Hand operated throttle, traction speed limiter, parking brake latch, ignition switch with automatic preheat cycle, single joystick control for cutting unit on/off and lift/lower. Cutting unit backlap switch located under operator's seat. Reel speed input located under control panel. HOC selector knob for setting corresponding HOC setting of machine per decal under seat frame.	
GAUGES	Hour meter, speedometer, fuel gauge, engine coolant gauge, and warning light cluster: engine oil pressure, high engine temperature, charge indicator, glow plug, water in fuel indicator, low water indicator. Reel control lamp that lights to indicate the reels are not providing desired clip.	
DIAGNOSTICS	The Automatic Control Electronics, ACE™ system allows precision timing and control of machine functions for maximum reliability. Standard diagnostic display connects to an electronic control unit to pinpoint any electrical problems quickly and easily. Available DATA LOG™ system allows mechanic to find intermittent problems. Diagnostic test ports are provided for front and rear cutting unit drive, cutting unit lift, steering, and hydrostatic transmission charge pressure.	
TRACTION DRIVE	Power to the front drive wheel is via servo-controlled hydrostatic pump operating individual fixed displacement axial piston wheel motors that operate a planetary gear assembly. Foot pedal control of forward/reverse ground speed. Toro 4-Matic® 4-Wheel Drive System only: couples rear drive axle to hydrostatic transmission via overrunning clutch for full time on-demand 4 wheel drive. A Roll Over Protection Structure (ROPS) and seat belt are standard.	
GROUND SPEED	0-10 mph (0-16.1 km/hr) forward; 0-4 mph (0-6.4 km/hr) reverse.	
TIRES/WHEELS/PRESSURE	Two rear steering tires: 20 x 10.00-10, tubeless, 6-ply rating. Two front traction drive tires: 29 x 12.00-15, tubeless, 6-ply rating. Recommended tire pressure: 10-15 psi (69-103 kPa).	
MAIN FRAME	All welded steel frame includes tie-down loops.	

on each piece of equipment before they operate it. The head mechanic is responsible for training the equipment operator to properly check all oil and fluid levels, along with the correct starting and

transporting procedures. The assistant superintendent is then responsible for teaching the safe operation of the machine out on the course. He is with the equipment hands-on to ensure that the

job is done correctly. He then follows the equipment operator out onto the course to show him/her the correct mowing procedure.

Is It Maintenance Or Repair?

BY ROY WILSHIRE, CGCS

Grasslands Golf and Country Club

Most of our budgets have a line item called M&R Equipment. The question is, which of those two letters do we rely upon the most — M or R? At the Grasslands, we are trying to use the M for maintenance more than R for repair. We are accomplishing this only after more than three years of adjusting schedules and simplifying our equipment purchases to best match the equipment that is already here. In simplifying our equipment, we are purchasing more items with the same engines, similar hydraulic sys-

tems and equipment that has proven itself in the field. In utilizing this system, we are reducing the need for unnecessary parts inventory, which is time consuming to count and reorder when needed, thus putting the labor time in the shop versus out of the shop. We are also finding that there are less in-the-field repairs now than in previous years.

This system is working because the shop foreman and his assistant are more able to schedule their work, rather than take the next one in line. And if something does go down repairs are more easily taken care of. Let's not fool ourselves! We still have our days when it's, "Take the next number, and we'll be with you in a minute." In addition to operating under less stress, it allows the em-

ployee in the shop more time to educate himself by reading the articles in the trade magazine and attending seminars. I'm very fortunate in having a very skilled shop foreman with a good background (thanks, Bobby Ellis.). His persistence, my willingness to allow him to establish the programs and utilize a computer program for equipment are paying great dividends for us at the Grasslands.

So, do you replace the grease zerk or the bearing? Change belts in the shop when they're cracked or after their broken in the field? These are just a couple of examples of how maintenance versus repair can assist you in being more productive and cost effective. And once it's in effect, you'll find that it's much easier to use the M rather than the R.

Non-Stop Mechanics - Better than an apple a day!

BY CHUCK GAST, CGCS

Superintendent

AND BILL ELLMAN

*Chief Mechanic
Jupiter Hills C.C.*

Key components of a successful golf course operation involve careful coordination of a myriad of programs relating to cultivation, fertilization, irrigation, regulation and all other sorts of "-ations." However, even with all these aspects in their proper place, basic, yet technical turfgrass mowing operations are the core of a sound golf course maintenance operation for quality playing conditions.

Just as important as having the appropriate equipment to complete specific turfgrass mowing operations, proper equipment maintenance on a routine

basis is essential to maintain desired mowing quality with optimum efficiency. To help us in achieving this goal at the 36-hole Jupiter Hills Club our staff has worked to establish a mechanics program with specific duties and responsibilities to each of three mechanics. We have incorporated rotational scheduling to ensure a mechanic is on duty no less than eight hours a day, seven days a week.

The mechanics staff at Jupiter Hills consists of a chief mechanic and two assistant mechanics, each with specific areas of responsibility. The chief mechanic oversees all operations in the shop area including maintaining parts inventory and prioritizing specific equipment maintenance relative to scheduled golf course operations. Correcting emergency breakdowns and general troubleshooting of less-than-cooperative equipment is also the responsibility of the chief mechanic. Primarily the chief mechanic maintains a work schedule of Monday through Friday, 6:00 a.m. to 3:00 p.m., while also

filling in on weekends depending on workload and assistant mechanics' scheduling.

As for the two assistant mechanics, one is primarily responsible for routine daily maintenance that involves a thorough check of all greens mowers following each mowing operation. Roller performance, motor and clutch operation, and reel-to-bedknife adjustments are maintained on all greens mowers on a daily basis. Attention to tires, batteries, fluid levels and servicing of air filters, as well as other aspects of daily maintenance of various other equipment is also handled by this assistant mechanic.

The workweek of this mechanic is generally Monday through Friday, 7:00 a.m. to 4:00 p.m. With the majority of the maintenance crew clocking out daily at 3:00 p.m., the extra hour at the end of the day allows this mechanic the opportunity to check out all equipment and perform all necessary set-up procedures for the following day as necessary.

Scheduled long-term preventative maintenance-type activities are performed by the other assistant mechanic. Areas of responsibility include lapping and grinding of reels, fluid changes, tune-ups, lubrication and other aspects of equipment maintenance performed on a routine once a month or every 100-hour service program. All pieces of equipment are addressed on a rotating basis with frequency determined by use rate. A workweek of Wednesday through Sunday, 6:00 a.m. to approximately 3:00 p.m. for this mechanic rounds out the attendance program in the shop to provide continuous full-time mechanic expertise on site. With complete access to all equip-

ment for most of the day on Saturday and Sunday, the weekend is an extremely valuable period to concentrate on maintenance of high-use equipment.

An additional benefit that greatly improves the entire operation through effective equipment training and troubleshooting between operators and the mechanics is the bilingual capabilities of one of the assistant mechanics. Without question, effective communication on a daily basis is a truly valuable step toward the proper use and safe operation of all equipment.

On a final note, while it is clearly evident that routinely scheduled equipment maintenance is essential to maxi-

mize equipment life and minimize down time, it is imperative to also maintain an effective and timely equipment replacement program. Continually channeling valuable mechanic attention to "over worked" equipment is not only very expensive in the long run but also inevitably results in a reduction in quality, efficiency and morale in daily procedures throughout the entire operation. Not to mention the fact of the potential snowballing problems that no doubt will occur if critical preventative maintenance programs are consistently shoved to the back burner. Take care of your equipment, or it most definitely will take the care out of you.

Golf superintendent hits a grand slam Using high technology lubricants

BY KEITH VANMETER

Professional golfers have grand slam tournaments, anyone may have a grand slam breakfast, and professional baseball players hit grand slam home runs. Golf superintendents can also hit grand slams with operational and productivity enhancement programs using better performing lubrications. Like runs scored on bases achieved with ballplayers, the bases may be occupied by designated teammates below:

1st Base: Higher productivity

2nd Base: Lower maintenance costs

3rd Base: Oil resources extension by usage

At Bat: The environmental steward

Runs scored by not fouling the environment with hydrocarbons and improving operations.

Going to bat with these engineered organic high tech lubrications will dramatically lower the superintendents confrontation with that old victory grabbing nemesis....DOWNTIME. The four-base, grand slam homer can indeed be hit by the superintendent.

The big pitcher

First, let us take a look at the field of play — Lubrications.

The large oil company was "the engine that could" industrialize the world from an agrarian world culture. This was a great accomplishment for mankind. Large petroleum industries jump-started global industry, rule the world in some peoples minds, and still greatly affect what happens for many economies.

Without oil, we would be mowing with hand power and the sickle. We might be fertilizing with animal byproducts, not the sophisticated chemical compounds in use today. In fact, Golf as we know it today would not exist.

America's game

The USA is the world's largest exporter of grease and oil. It is so because the USA has the cleanest of the world's oil supply. The least contaminated drilled oil, produced by Mother Nature, lies under the mid-continent of America.

The most oil drilled and the dirtiest oil comes from that world hot spot, the Middle Eastern. Because this crude oil is high with sulfurs and tars, it is primarily manufactured to be fuel products for consumption.

In the good old U.S. of A, crankcase, gear box, hydraulic and transmission oils are "Made in America" with America's high-paraffinic based oil resources.

Synthetics are oils that are synthesized. These topnotch oils are great for some applications. — long-hauler trucking companies for one of many. Use in golf operations is overkill.

Mineral-based, high technology oil is best for the golf course unless otherwise indicated. As it is not as expensive as synthetic oil, it will offer unexpected high performance.

Why pay the extra costs of synthetics above the mineral-based products and spend more than you can justify? Today, synthetics are not cost effective.

The best ballplayers

Manmade machines emulate the human machine. As blood is to our human body, oil is to the mowing machine. Blood acts as oil in that it helps cool our body engine, taking away wastes and heat.

Without healthy blood, we trudge down and are inefficient as fully functioning, living machines. Ditto with a not-living machine, pump or other mechanism.

The key to an efficient mechanism is getting the heat and wastes down to within operational limits, even in the most extreme working environments.

Make no mistake about it: golf operations are Extreme Working Environments and courses aren't level playing fields.

Operations require the lowest levels of downtime possible to be efficient and

THIS IS MOTHER NATURE AT HER BEST.

The best and most environmentally responsible way to grow-in or maintain golf course turf is to apply organic liquid nutrients through your irrigation system. Toro Liquid Ag products and services are the complete and sensible answer to golf course nutrition and the need to reduce the use of harsh chemicals.



Dr. Max Brown,
Director
of Agronomy
for Toro
Liquid Ag.

©1996 The Toro Company. "Toro" is a registered trademark of the Toro Company.

- Fertigation Grade Bulk Liquids
- Enviro-Phos
- Enviro-Green Premium Fertilizers
- BioPro® Green and Tee Products
- BioPro® Tuff Greens
- BioPro® Multi-Purpose
- 12-3-9 Organic Granular
- Micro Nutrients

For help in selecting the best products and services, call Toro Liquid Ag.

1010 N.W. 15th Avenue
Pompano Beach FL 33069
1-954-971-0022

3281 Metro Parkway
Fort Myers, FL 33916
1-941-332-5565 or 1-800-375-5274

TORO

LIQUIDAG[™]

productive. All the signs exist for consideration and use of high technology lubrications.

Spending \$40,000.00 for a machine is not uncommon today. That machine and others in the assets mix must be productive. Having backups help, but this can be brutal on the budgets. Over the decades, superintendents have implemented many innovative programs to combat downtime; they can and do work.

Homer power

One of the most overlooked tools to lower downtime has been the improvement of machine operations with lubrications knowledge.

The job historically has been left to the technician, providing he stays within budget allowed. More often than not, the technician perceives the budget as a constraint. Consequently, he doesn't look for better results and continues the archaic ways of doing.

He may not understand what high-tech lubes can do for the operation or doesn't know the proper way to explain to the superintendent their cost effectiveness. Sometimes the superintendent may not understand the positives offered, as he may be screened away from the true high tech representative.

The company representing the technology may not understand the full user implications. This is a real problem existing today.

Team player

In a nutshell, the manufacturing of mineral-based, high-technology lubrications is taking the large oil company's refined oil and beefing it up for desired high performance.

The high tech oil company pays extra for the cleanest base stock. In fact, this cleanest base stock must be certified by the refiner. If the refiner fails to provide this quality, the base stock goes back.

These additional manufacturing steps are taken to lower the contaminants that naturally reside in all petroleum. Sulfur is the main contaminant to lower and also the main culprit to breaking the manufactured oil's effectiveness.

Let's go back to high school chemistry to illustrate what sulfur does. Recall your chemistry teacher's inquiry: What do you get when you mix sulfur, water and air? The answer is sulfuric acid, the number one cause for oil breakdown.

Lower the sulfur levels and you have a great oil to start with.

Residual tars and paraffins are next, with other steps following.

After all of these extra manufacturing steps, the high-tech company adds to the premier-based, refined mineral oil with all-encompassing, design-engineered chemical manipulations.

These additives offer stability, translated to longlasting, high-performance oil.

Additives used in high-tech oil manufacturing are meant to optimize the oil's performances under extreme conditions. They consist of seal swellers, corrosion inhibitors, oxidation inhibitors, anti-foaming agents, water/chemicals resistance ingredients, optimum heat transfer agents, viscosity improvers, anti-shear improvers and other additions.

Manufacturing high-technology lubes is an expensive process. There are many who say they produce high-tech lubes, but only a few who do.

Rattled at the plate

There has been much confusion and frustration over high-technology lubrications. A very important point to remember: the high-tech oil products have the same S.A.E. oil ratings as 10W40 multigrade or S.A.E. 30 weight, standard engine oils.

The gear box oils have the same gear lube rating as 90 weight, 140 weight or 85W140 multigrades, commonly used on courses.

The hydraulic oils/fluids have the same ISO/S.A.E. ratings as in I.S.O (International Standards Organization) 32, 46, 68 or 10W, 20W, 30W or 10W40 S.A.E. (Society of Automotive Engineers).

GEORGIA CERTIFIED TIFDWARF SOD MAINTAINED AT 1/4 INCH



PIKE CREEK TURF inc.

*PRODUCERS OF GEORGIA CERTIFIED
HYBRID BERMUDAGRASSES*

Tifway

Tifgreen

Centipede

Tifway II

Tifdwarf

Meyer Zoysia

We specialize in golf course & athletic field turf installation

1-800-232-7453

PIKE CREEK TURF, INC.

ROUTE 2, BOX 376-A

ADEL, GA 31620

The high-tech grease can be the same NLGI (National Lube and Gear Institute) extreme pressure rating of EP2.

No magic here; no smoke and mirrors.

All use the same test methods and standards as any oil company. You should make lubrication decisions on these classifications as recommended by the equipment manufacturer.

The high-tech oils do not cause warranty problems when used in compliance with manufacturer's guidelines.

The high-tech stuff just works better, making your machines more productive.

It is true that the user will get the best bang for the buck when the warranty period (usually one year) is over. That is because the user can make the best use of the technology as the operation adjusts the preventive maintenance program to take advantage of the longer life cycles of the high-tech oils, or as the equipment matures and gets more cantankerous.

Some technicians may be unaware of simple oil analysis guide of usage rates. An operation can measure the differences in performance of oils as comparing parts and labor costs with usage, downtime lowered, equipment life cycles extension, etc..

Too hot to play

After sulfur, the second-most naturally offensive assault on manufactured oil is poor heat transfer, which causes thermal decomposition, breaking the oil's effectiveness.

More prominent in the superintendent's mind may be hydraulic oil in the summer. Have you ever wondered why your technician complains so much about the hydraulic-driven machine trudging down in the late morning? The technician claims the blasted thing won't go over a berm in the afternoon or stops altogether.

Heat transfer is the problem.

Poor heat transfer will blow hoses and cause the ever-threatening oil spill with high costs.

John Gallagher, golf course superintendent, and Don Lanning Sr., equipment manager, of Boca Woods CC in Boca Raton offers interesting insight.

Boca Woods CC, a pristine 36-hole private community had this kind of dilemma. They were ready to scrap machines, thinking they would make good artificial reefs. They now use the high-tech hydraulic oil with the machines running full out all day, every day. Their fairway units climb whatever berm without work stoppage.

If you were a machine and you lowered your operating temperatures, your arms (hoses) wouldn't tire of work or pull a muscle (blow a hose). They would stay strong and flexible allowing for those joint angles (hose curves) that add pressure due to design restrictions.

Lower the pressures on the hoses, couplings, and connectors by using better

Environmental Waterway Management Continues to Grow!

Services now include

Lake Management

Wetlands Planting and Maintenance

Exotics Control

Industrial/Agricultural/Vegetation Management

Right-of-Way Vegetation Control

We proudly announce new services and our new name...



Aquagenix
Land - Water Technologies

1-800-832-5253



Serving Sunbelt States Since 1974

oils and you lower blown hose frequencies. But if you have the inevitable hose break. I have seen a unique product offered by Aqua-Aid, Inc. of White Marsh, Md.. The system will bioremediate the hydrocarbon contaminants and immediately promote turf renewal without turf replacement, which creates uneven playing levels from the replacement of soil and turf. An added bonus is not paying the high cartage fees for hazardous materials. Aqua-Aid, Inc. is a longtime GCSSA member.

Hydraulic oil rated at least 4000 hours on the ASTM D-943 oxidation test is best to use. It must be blended with the stable and sophisticated additive packages to be most effective.

The biodegradable hydraulic oils should be carefully evaluated before use. The products' ability to stand up to the heat and pressures of Florida are under great suspicion. Be wary of the claims of "biodegradability."

Being a pioneer can get arrows in the back. Biodegradation of hydrocarbons test standards are based on water and its toxicity to fish and aquatic life, not the turf or soil.

The "environmentally friendly" higher technology oils are just that... friendly. They are not biodegradable, but they do eliminate the most frequent of spills: the hydraulic oil leak of less than five gallons on your valuable turf.

An overlooked benefit of high-tech oils is extension our oil resource through extended life of the product. If you do use the new stuff, expect the unexpected from your equipment, especially in the summertime.

The current practices in engine manufacturing reflect the need for high-tech crankcase oils and should be investigated as soon as possible. Several engine manufacturers are now recommending better oil because of the importance of improved heat transfer.

The ever-growing use of composites and the thinner engine cylinder walls demand improved heat transfer. With the additives used by high tech companies, I have witnessed engine oil being used on the course equipment and reaching 500 hours before it breaks.

Now can you see how this can translate to lower costs, even with the higher prices of the higher technology. Price to the end user can be three times the cost of the large oil company. As the lubricant performs three to six times better, you are way ahead with costs savings and highest productivity.

The manager's headache

High tech grease should be used throughout the assets mix, even at high cost. Greens committees don't like oil lube streaks on the turf. The superintendent and head technician who adopt a truly high-tech grease will be happy.

It really makes that turf-streak headache go away.

The grease must stand up to 500 degrees F., have a minimum Timken load rate of 60,000 p.s.i. and be rated excellent around water. This will prevent the grease from melting and running to the turf or being squeezed out due to topography undulations.

***Using high-tech lubes...
consumes less of our
precious resource and
generates less hazardous
waste... oil is a limited
resource and is classified
hazardous upon use.***

For golf, an important grease function is not turning to soap in contact with afternoon power washdowns. High-tech grease stays where you put it. This high-tech grease doesn't take the place of regular greasing but it does prolong the bearings' life and eliminate melting to the turf.

Don Lanning of Boca Woods will confirm that the use of higher tech greases and gear-box oils have eliminated 85 percent of bearing loss and associated downtime. The shade-tree mechanic will tell you what works on your car chassis will work for your equipment.

Emphatically, not so! Don't buy that; the loads put on your equipment far outweigh the worst car environments.

Unexpected runs batted in

Using high-tech lubes gives other unexpected benefits. The user consumes less of our precious resource and generates less hazardous waste. We now are fully aware that oil is a limited resource and is classified hazardous upon use.

The pressures we are all under from the environmentalists and regulators, coupled with government's ever-growing encroachment of our workplaces, demand closer scrutiny of the products used. Golf operations managers are fine environmental stewards. We have proven this over and over again. Alas, we will have to continue to demonstrate this to the public and the regulator. We continue to lead.

The umpire

The EPA has now been given a new budget for the rest of 1996 as part of an omnibus bill of \$6.5 billion, an increase of \$818 million. Enforcement also received \$40 million more than last year, pulling in \$490 million.

Federal EPA Administrator Carol Browner heralded the passage of the budget with phrasing amounting to a challenge to us all.

"As a result of this budget agreement, vital public health and environmental protections will remain in place and will be enforced. The budget provided needed funding for safe, clean air, the cleanup of toxic waste sites and the strong enforcement of our nation's environmental laws."

Just in case you missed it, the operative words were "strong enforcement."

A petroleum operations consultant, Keith VanMeter is president of The Protector Mfg. Company, Inc. based in Boca Raton, Florida, which specializes in lubrications analysis and applications problem solving. Copyright © 1996

10 Years of Proud Service and Commitment

Ten years ago we made a decision that we would give back to the industry that has supported us. We have kept that promise and have shown our commitment to Florida Superintendents by spending our money with the State and local Associations. In 1995, for example, we spent more than \$42,000 supporting the industry at home. We are the exclusive sponsor of THE GREEN SHEET and a major supporter of THE FLORIDA GREEN. We have also been



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

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



JIM SARTAIN
DON DELANEY

DAVID MILLER
DAVID CHEESMAN

SALES REPRESENTATIVES

John Baniak	Jeff Hayden	Walt McMahan	Bob Schroeter	Brad Walters
Mike Bonetti	John Luper	Debbie Nipper	Wayne Sloan	Pat Yarbrough
Mel Hallack	Frank McGhee	Wayne Pixley	Steve Sorrell	Glenn Zakany

2101 E. Edgewood Dr. • Lakeland, FL 33803
(941) 665-5800 • (800) 330-8874
Fax: (941) 667-0888

15864 Brothers Court, SE • Ft. Myers, FL 33912
(941) 481-1358 • (800) 481-8911
Fax: (941) 481-6166

See You on the Net

BY JAMES F. MOORE

Director, Construction Education
USGA Green Section

It seems like just a few years ago I was writing my first article about using computers in golf course management. Highlights of that article included the need to purchase an IBM PC (there were no compatibles at that time) with a whopping 64K memory, monochrome screen (some will remember it was quite some time before CGA cards with four colors came out), and two floppy disk drives (two drives was quite an upgrade from the standard one, 360K unit).

For the next couple of years I gave numerous talks on using computers to help the superintendent in keeping records. And I distinctly remember trying to somehow justify an extra \$300 dollars to purchase a 300 baud modem. Justification was difficult, however, since there was really no information "on-line" that could remotely prove useful to the golf course superintendent.

Frustrated, I bought the modem out of my pocket and started my own turf-related bulletin board.

Unfortunately, since virtually no other superintendents were using computers at the time, my little bulletin board stayed quiet. I eventually opened it up to public access and began to be overrun with users — people who didn't care anything about turf but knew computers inside out.

Over the next few months a few turf-related bulletin boards did pop up, including Turfbyte and finally, and on-line world started to offer useful information for the golf course superintendent.

When the USGA-sponsored Turfgrass Information File was developed at Michi-

gan State, the golf industry had its first real information resource. But unfortunately, few superintendents in those early days were ready to tackle the unpredictability and still buggy world of on-line computer communications.

How far have we come since the early days of personal computers on the golf course?

Well, most superintendents I visit now have seriously powerful PCs, most with memory measures in megabytes of RAM (instead of K's) and gigabytes of hard

and how do you get to it? On the internet of course, and getting to it is much easier than you might think.

Briefly, the internet actually offers a variety of services, the most prominent of which are the World Wide Web (WWW), electronic mail (e-mail), USENET (a collection of news-groups) and File Transfer Protocol (FTP).

*The WWW is often used interchangeably with the phrase "internet" since it is easily the most glamorous aspect of the next. The web is the graphical portion of the internet and by far the most fun.

*E-mail is the net's mail system and allows net users from all over the world to communicate easily and efficiently.

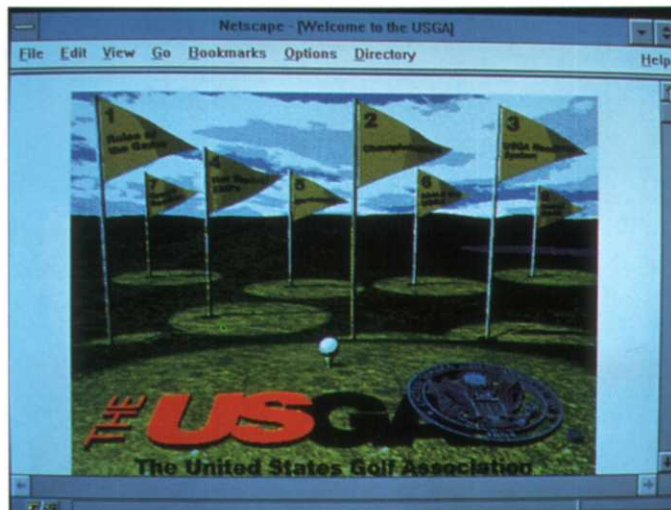
*USENET is like a giant collection of discussion groups (often called newsgroups) on which you can trade opinions with others on virtually any topic you can imagine.

For example, I bumped across a newsgroup the other night composed of a bunch of folks who really hate Barney. On the more useful side of things, there are newsgroups that provide valuable information

and discussion on various diseases, finance, travel, child rearing, religion and every sport on the planet.

As you might imagine, the newsgroup for golf is one of the most active of the sports-oriented groups. There are literally thousands of newsgroups.

*Finally, FTP is the protocol, or program, that allows files from one computer to be transferred to another. For example, you might wish to download the USGA's guidelines for our recom-



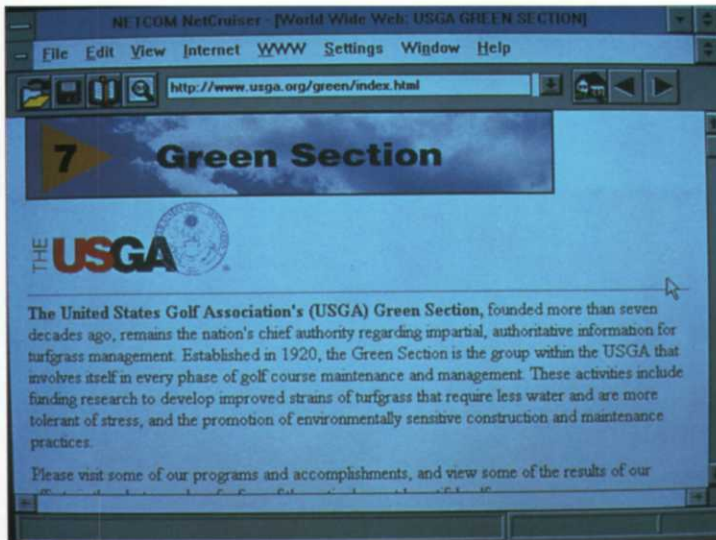
USGA Internet site. Photo by James Moore.

disk storage. Most are equipped with modems boasting speeds of 28,000 — over 80 times faster than my first modem.

But best of all, there is now an unbelievable amount of agronomic and turfgrass information on-line. And while a major land-grant university library may well contain more turfgrass information,

I guarantee that information won't be as up-to-date as what you can get through your computer and modem.

Where is all this on-line information,



USGA Green Section Internet site. Photo by James Moore

mended method of green construction. Your computer would use FTP for this process.

Space does not allow discussing each of these aspects of the web in any great detail. Since most of the turfgrass-related information is found on the web (WWW), let's concentrate on the steps necessary to get you up and running with the least amount of effort.

1. You must have a computer. The good news is you don't need the latest and greatest powerhouse Pentium machine. In fact, your old 386 will actually work very well — assuming you have a good modem.

2. You must have a modem — and a good one is worth the extra cash. Be sure to purchase one that is rated at 28,800 baud or better. Don't try to save \$50 and settle for the 14,400 model. Although you can definitely cruise the net at 14,400, it is sort of like staring at ryegrass seed and waiting for it to germinate.

You will also have to choose between an internal or external modem. Both have their advantages. The internal will be slightly cheaper and obviously does not take up space on your desk. The internal also will have built onto the board the high-speed communications, or comm chip, that allows you to communication at speeds over 14,400. There are three main disadvantages to internal modems. First, you have to take the cover off your machine and install the card. Although

happen). The only method of resetting the internal modem is to reset the entire computer. The third drawback is the internal modem does not have lights to let you know what it is doing.

The external modem is slightly more expensive (usually around \$25 more). However it comes with an on/off switch in case of lock-ups.

The lights on the front panel let you know when you are connected and when data is being transferred successfully. You will need another AC outlet to power the external model.

Your computer will also need to have an open serial or comm port on the back to connect the external modem to the computer.


this is no big deal some folks would rather not mess with the inside of their computer. A larger disadvantage to me is that you cannot reset the internal

m o d e m should it lock up (not as frequent an occurrence as it used to be, but it does still

However, on older computers there is another major drawback. Most older machines use what is called the 8250 UART. This chip cannot pass information from your modem to the computer at speeds about 14,400. So even if you have the 28,800 modem, your connection speed will be limited by the 8250 chip. To realize the full benefit of the faster modem, you will need to upgrade your serial card to the 16550 chip. These cards cost around \$50.

How can you tell which comm chip you have? If you have Windows on your machine (doesn't everyone by now?), exit Windows to the DOS prompt. Change directory to the Windows directory (CD\windows) and type "msd" (without the quotes). This is the Microsoft diagnostic program. Click on "comm ports," and you will see which type of chip is installed on each port on your machine.

3. So let's assume you have your computer and modem. What next? You need



GO-FOR

SUPPLY

1-800-475-7081

<p>ACCESSORIES</p> <ul style="list-style-type: none"> American Eagle Bayco Fairway Markers Kirby Markers Flexstakes Markers, Inc. ParAide Southern T.A.T. 	<p>FERTILIZER & SOIL AMENDMENTS</p> <ul style="list-style-type: none"> Axis Break Thru Plantex Fert. Plant Marvel Precision Chemicals
<p>EQUIPMENT</p> <ul style="list-style-type: none"> Allen Danville Sprayers Tamaka 	<p>MISC</p> <ul style="list-style-type: none"> Drag Mats Hole In White Fox Valley *Marking paint *Traffic paint Stripers Goosegrass Pullers

****R&R DISTRIBUTOR **SAFETY PRODUCTS**

Note: Some of the addresses listed may have changed by the time this article is published.

United States Golf Association
<http://www.usga.org/>

National Golf Foundation
<http://www.gate.net/~ngf/ngf.html>

PGA of America
<http://www.pgaonline.com/>

Golf Course Superintendent's Association of America
<http://www/gcsaa.org/gcsaa/>

American Phytopathological Society
<http://www.scisoc.org/>

The National Agricultural Library
<http://www.nalusda.gov/>

National Weather Service
<http://www.nws.noaa.gov/>

Florida Agricultural Information Retrieval System (FAIRS)
<http://hammock.ifas.ufl.edu/>

University of Nebraska-Lincoln Institute of Agriculture and Natural Resources (IANR)
<http://ianrwww.unl.edu/>

Chemical Fact Sheets
 gopher://
ecosys.drdr.Virginia.edu:70/11/library/gen/toxics

Texas Plant Disease Handbook
<http://cygnus.tamu.edu/Textlab/tpdh.html>

Penn State Gopher Site
<http://www/realtime.net/turfgrass/penn.htm>

Texas A&M University Turfgrass Files
<http://leviathan.tamu.edu:70/1s/mg/turfgras>

Guelph Turfgrass Institute
<http://www.uoguelph.ca/GTI/ghome.htm>

University of Georgia Extension Service
<http://www.ces.uga.edu/ces/pubs.html>

The Regional Climate Centers
http://met-www.cit.cornell.edu/other_rcc.html

Response of Turfgrass and Turfgrass Weeds to Herbicides
<http://hammock.ifas.ufl.edu/txt/fairs/wg/18059.html>

TMIC Turfgrass Manager's Information Service
<http://www.realtime.net/turfgrass/>

Turfgrass - Michigan State University
<http://msue-web.canr.msu.edu/msue/iac/turf.html>

Turfgrass Insects Sheet
<http://hammock.ifas.ufl.edu/text/en/turfins1.html>

The Basics of Turfgrass Fertilization
<http://www.ces.uga.edu/lawns/basicfer.html>

TurfFiles Publication Index (North Carolina State University)
<http://www.ces.ncsu.edu/TurfFiles/pubs/>

a phone book. Now is the time to start looking for an Internet Service Provider, or ISP. These are the folks who will provide your connection to the internet. Expect to spend around \$20 - \$25 per month for unlimited access time. Although you can get on the internet through services such as Compuserve, Prodigy and America Online, I prefer the more direct connection of the ISP due to the increased speed of access. A local ISP provider is also a lot more likely to provide the help you may need to get your

internet software set up.

Usually the ISP will provide you software to navigate the internet as well. The software used to access and surf the World Wide Web is called a browser. Netscape and Microsoft's Internet Assistant are the two most popular, with Netscape the browser of choice (at least so far) of the vast majority of internet users.

The local ISP company should walk you through setting up your machine and getting on-line the first couple of times. If they are unwilling to do this, go

to someone else. Providing access to the internet is big business with service being one of the most important distinctions between a good provider and one that stinks. Another major factor is line availability. Some providers are cheap and friendly, but this does little good if their numbers are always busy. Ask around - a lot.

So that's about it. You got your computer, modem and struck a deal with an internet service provider. Now what? Where is all that information, and how

Tifton Physical Soil Testing Laboratory

Specializing in:

- Testing All Materials for USGA Golf Green Construction.
- Developing Putting Green Rootzone Mixtures that meet USGA Specifications.
- Recommending Topdressing and Bunker (Trap) Sands that meet USGA Specifications.
- Developing Sportsturf Rootzone Mixes with Optimum Physical Properties for Athletic Fields.

1412 Murray Avenue
 Tifton, Georgia 31794



T. Powell Gaines
 (912) 382-7292

do you get there?

Every web site (locations on the World Wide Web you would like to visit) has an address. This address is referred to as an URL (universal resource locator). This address allows the web site to be found by your browser no matter if the web site is in Australia or Flour Bluff, Texas (my hometown, believe it or not). If you want to visit a specific site, you will need to enter the URL of that site into your browser. To save you some grief I have listed a few at the end of this article to get you started. However, don't hesitate to explore. That is the real fun and excitement of the internet, especially the World Wide Web. On almost every web site you will find links to other places. Click on a line and a few seconds later you may be on a web site on the other side of the planet. You will soon find yourself lost and/or looking at information that has absolutely nothing to do with what you started out to find. Don't sweat it. Just do a quick search (you will find searching

quite easy), and you're back on track.

To embarrass those of you who think you are too old or too computer illiterate to accomplish all this, consider my 9-year-old son, Andrew. Andrew likes bugs and science in general. Outside our back door, Andrew noticed a large wasp digging a hole in our flower bed and wanted to know what kind it was. Based on his description I thought it was probably a Cicada wasp. Checking my old entomology text did not help with the identification since there was no picture. So I told him to get on the net and see if he could find a picture. He fired up Netscape and within a couple of minutes was doing a search for the phrase "cicada wasp." Unfortunately, no direct hits came on this phrase. However, over 20 hits were listed for university entomology departments and other people who share Andrew's interest in bugs. He selected a university in England which listed many of their faculty members' e-mail addresses on the department web page. After clicking on

the e-mail icon (which brought up the e-mail editor) he wrote a quick note to the scientist asking for a little help in finding a picture. Early the next day Andrew received an e-mail from the scientist listing the URL of a web site containing thousands of insect pictures, where Andrew soon positively confirmed the identity of our flower bed resident.

Surely if the 9-year-old son of a Texas Aggie can meet the challenge of the internet, so can you. You just have to dive in, prepare for a little frustration in getting your connections made, and somehow make some time for the fun and overload of information that is about to come your way.

See you on the net!

James F. Moore

Director, Construction Education
USGA Green Section

e-mail address — moore@acm.org

web site — <http://www.acm.org/>

~moore

"With over two miles of cart paths and plenty of parking area, it's important to us and our members that repairs are quick, neat and permanent. EZ STREET™ Cold Asphalt Pothole Patch in bags provides our crews with just that. With everything from easy manageability of the product to great performance in rain-soaked holes, EZ STREET™ has proven itself to be an ideal grounds maintenance solution."

**Dan Jones, CGCS, Golf Course Manager
Banyan Golf Club, West Palm Beach, FL**



- No mixing required
- Ready to use right out of the bag
- Works in virtually all weather conditions
- Can be applied to asphalt or concrete
- Once applied, immediately ready for traffic
- Available in easy-to-handle 50 lb. bags

EZ STREET™ COLD ASPHALT POTHOLE PATCH...
because it's not all green grass out there.

Visit us on the Internet: www.ezstreet-miami.com
For product information or to become a distributor, contact us at:

ASPHALT RESEARCH TECHNOLOGY, INC • 14005 N.W. 186TH ST. • MIAMI, FLORIDA 33018 • (800) 734-1476

EZ STREET™ is a trademark of Asphalt Research Technology, Inc., Miami, FL 33018 • Manufactured by Asphalt Research Technology, Inc., and associated licensed manufacturers.



GCSAA Certification Renewal Policy for Renewal Dates after July 1, 1996

CEU Categories	Tested	CEUs	Verification	Recording	Option
**GCSAA Seminars	Yes	Varies	By GCSAA	As Occurs	1 or 2
Cardiopulmonary Resuscitation (CPR)	Yes	.7 per renewal period	Copy of wallet certificate submitted by CGCS	As Occurs	1 or 2
First Aid	Yes	.7 per renewal period	Copy of wallet certificate submitted by CGCS	As Occurs	1 or 2
GCSAA Board LRP Meetings	Yes	1 per meeting	By GCSAA	As Occurs	1 or 2
Locally sponsored events (preapproved)	No	Varies - .5 minimum	Affadavit submitted by CGCS	Within 30 days of event	1 or 2
CMAA & PGA Seminars	No	Varies - .5 minimum	Copy of certificate submitted by CGCS	As Occurs	1 or 2
Accredited programs	No	Varies - .5 minimum	Copy of certificate submitted by CGCS	As Occurs	1 or 2
GCSAA National Conference Attendance	No	1 per year	By GCSAA conference registration	Receipt of renewal application	1
College credit in turf or business subjects	No	1.5 per semester credit hour	Transcript submitted by CGCS	As Occurs	1 or 2
Pesticide Applicator License	No	1 per renewal period	Copy of license submitted by CGCS	Renewal application	1 or 2
Teaching - turf or business subjects	No	Varies	Letter from sponsor	As Occurs	1 or 2
GCSAA Board Service	No	1 per year	By GCSAA	March 1 of each year	1 or 2
National Committee Service	No	1 per renewal period	By GCSAA	Receipt of Renewal Application	1 or 2
GCSAA Affiliate Chapter Officer	No	.5 per year	Letter from chapter attached to Renewal Application	Receipt of Renewal Application	1 or 2
Certification Attestor	No	.5 per visit	By GCSAA	As Occurs	1 or 2
Chapter Reps Meeting in Lawrence	No	.5 per year	By GCSAA	As Occurs	1 or 2
Speaking at GCSAA National Conference	No	5 per year	By GCSAA	As Occurs	1 or 2
Published articles in GCM	No	5 per article	By GCSAA	As Occurs	1 or 2

Option 1: Requires 15 CEUs total (a minimum of 4.9 must be from the tested CEU Categories)

Option 2: Requires 10 CEUs total (a minimum of 7.0 must be from the tested CEU categories) NOTE: As indicated, GCSAA National Conference attendance does not count in this option.

CEUs from GCSAA seminars are earned by successfully completing the examination given at the end of the seminar.

Maintaining certified status requires a renewal process to be completed every five years from the initial date of certification. CEUs must be earned within the dates of a five-year renewal period to be applicable toward fulfillment of that renewal process.

CGCS may opt to retake the certification examination each five-year period to fulfill the renewal requirements.

Keep us informed about weather-related challenges

CHAPTER RELATIONS — GCSAA would like to encourage chapters to keep us informed about regional golf course maintenance problems, especially those that are weather-related. GCSAA will provide information to members in those areas to assist them with answering inquiries from golfers, employers and the media. Timely research and distribution of information will depend on GCSAA's awareness of these problems as they arise.

Last summer, the unusually hot and dry conditions provided difficult challenges for superintendents. While GCSAA was able to provide weather-related information packets later in the summer, the association would like to react more

quickly in the future.

Chapter representatives can contact Don Bretthauer, chapter relations manager, or David Bishop, information services manager, about unusual weather or extreme diseases affecting large numbers of golf courses in their areas.

GCSAA will mobilize its departments, including information services, public affairs, chapter relations and media relations, to send information back to chapters in a timely manner. Information packets, news releases and GCSAA's World Wide Web site will all be utilized to assist and support superintendents facing these unusual challenges.

Strike It Rich!



GCSAA 68th International Golf Course Conference & Show

February 6-12, 1997
Las Vegas Convention Center
Trade Show: February 10-12

Register Today!



1421 Research Park Drive
Lawrence, KS • 66049-3859
800/472-7878 • Fax: 913/832-4420

**CERTIFIED TURF GRASSES
NOW AVAILABLE IN
PALM BEACH COUNTY
FROM:**



Rainbow Grass

- ⊕ Certified: Tifway (419)
Tifdwarf
Emerald Zoysia
- ⊕ Conventional and hydro sprigs
- ⊕ Member of the Southern Seed Certification Association

Rainbow Grass

17464 N. State Road 7 • Boca Raton, FL 33498
(561) 482-1401 • (561) 487-3190 Fax
(800) 543-6905

Predictable Results.

In managing golf course turf, it's what matters most. As specialists in turf care, we look long and hard for products that are truly superior before we present them to you. We insist manufacturers prove their claims in the lab *and* the field, because we're committed to your results - on your course and for your bottom line. Call. Let us demonstrate the terrific results you'll get with these technically superior products.



Amends soil to give you more leeway managing the crucial air/water balance in root zones. Aerify, rototill, topdress. More porous than clay-based amendments. Does not compact. Proven effective in USGA greens.

BREAK-THRU™ *The most effective wetting agent known to science (that you can afford). Proven safe. Decrease pesticide use while increasing effect. Save 40% or more on soil conditioning. Affordable dew control.*

AGRO-TECH 2000 Inc.

PLAINSBORO, NJ

1-800-270-TURF

Available in Florida from: • GO-FOR SUPPLY 1-800-475-7081
• DICK BLAKE 407-736-7051



Across the country, native plant materials are being incorporated into course design. Golfers should recognize that golf courses are managed land areas that should complement the natural environment. Breckenridge GC, Colorado.

Attitudes must change

BY JOHN H. FOY

Director, State of Florida
USGA Green Section

As with numerous other aspects of every day life in America, television has changed the game of golf. With the broadcast of a large number of tournaments and championships each year, a change in golfer attitudes towards course conditioning has occurred.

A standard of "wall to wall" perfection has been established. Most golfers however, are totally unaware of the amount of work and cost required to put a course into championship conditioning for the few days of a televised event. On the other side of the coin, golf course superintendents have risen to meet the challenge, and across the country, superbly conditioned courses are being provided.

Yet, over the past several years, golf courses and turfgrass have been heavily criticized for their perceived negative en-

vironmental impacts. University research continues to document that properly maintained golf course turf can be provided without detrimental effects on the environment.

Numerous positive steps are also being taken in management and design to further minimize possible negatives and accentuate the positive environmental aspects of golf courses.

It is essential however, that additional changes in golfer attitudes be made to ensure that the game continues to flourish. This is especially true with regard to water bodies and out of play areas. Education of golfers and the general public is an important part of this process.

In 1994, the Center for Resource Management, Golf Digest Magazine, the National Wildlife Federation and the Pebble Beach Resort Company, resolved that the time was right to bring representatives of many of the country's most influential golf and environmental organiza-

tions together to address issues related to golf and the environment.

Following the first meeting in January, 1995, a committee of approximately 25 golf, environmental and government representatives worked together to develop a guide titled, *Environmental Principles for Golf Courses in the United States*. At the second meeting of this group, in March 1996, this document was reviewed and approved. Endorsing organizations include:

- American Society of Golf Course Architects
- Arizona Golf Association
- Audubon International
- Center for Resource Management
- Club Managers Association of America
- Friends of the Earth
- Golf Course Builders Association of America



Golfers should respect environmentally sensitive areas within the course. Marsh Landing CC. Florida.



LEGACY™
GOLF IRRIGATION

Now There's A Third Option...



Backed Up With 30 Years of Experience

In the past, golf course superintendents generally got two bids when replacing an irrigation system. But now there's a new option. Legacy has brought together the world leader in gear-drive technology and the leader in control systems and valves with a combined track record unsurpassed for quality products.

Legacy available at 10 Century branches in Florida:
Clearwater, Ft. Myers, Gainesville, Kissimmee, Longwood,
Naples, Orlando, Port Richey, Sarasota and Tampa

Century - Your Link to Legacy

Whether you are replacing just one head, an entire system or planning a new course, call a Century golf professional.

With more than 30 years of experience and an impressive list of satisfied customers, Century can show you the advantages of a third option with Legacy.

GENTURY RAIN AID

800-347-4272

<http://www.Rainaid.com>



In the past, maintaining close cut turf cover around lakes has been demanded. This attitude must change.



Buffer strips, as well as shoreline and aquatic plantings are essential for minimizing potential for chemical and fertilizer runoff and soil erosion. They also improve water quality and create wildlife habitat. Yacht & Country Club of Stuart.

Golf Course Superintendents of America
 Ladies Professional Golf Association
 National Association of Counties
 National Club Association
 National Coalition Against the Misuse
 of Pesticides
 National Golf Foundation
 National Wildlife Federation
 North Carolina Coastal Federation
 Pamlico-Tar River Foundation
 Save the Bay
 Southern Environmental Law Center
 United States Environmental Protection
 Agency
 United States Golf Association

The following is Section F, "What Golfers Can Do To Help," from this environmental principles document:

"The American golf community is dedicated to preserving the game's treasured links to nature. As a result, golf courses are now being developed, designed and managed more responsibly than ever before. However, we who play the game also have a responsibility to help ensure that golf remains compatible with nature and that our courses are well-managed and in harmony with the environment".

As golfers, we should:

1. Recognize that golf courses are managed land areas that should complement the natural environment.
2. Respect designated environmentally sensitive areas within the course.
3. Accept the natural limitations and variations of turfgrass plants growing under conditions that protect environmental resources (e.g., brown patches, thinning, loss of color).
4. Support golf course management decisions that protect or enhance the environment and encourage the development of environmental conservation plans.
5. Support maintenance practices that protect wildlife and natural habitat.

6. Encourage maintenance practices that promote the long-range health of the turf and support environmental objectives. Such practices include aerification, reduced fertilization, limited play on sensitive turf areas, reduced watering, etc.
 7. Commit to long-range conservation efforts (e.g., efficient water use, Integrated Plant Management, etc.) on the golf course and at home.
 8. Educate others about the benefits of environmentally responsible golf course management.
 9. Support research and education programs that expand our understanding of the relationship between golf and the environment.
 10. Take pride in our environmentally responsible courses.
- For a copy of this document, call the USGA or the GCSAA.

FLORATINE



"My greens were very thin going into fall (1995) after 100 inches of rain. Using **Floratine** products, I had great lateral growth in the spring, covering all bare areas by April."

Scott Corwin, Supt.
 Belleview Mido
 Clearwater, FL

KEEPERS OF THE GREEN



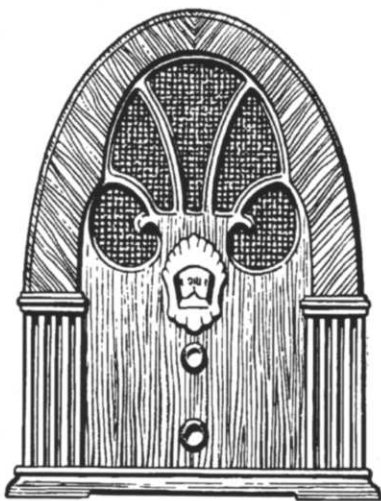
"**Maxiplex** has reduced granular fertilizer use by 40% while maintaining consistent color. (With **Floratine** sprays) the turf recovers more quickly after drought or cold stress."

Stu Hazard, Supt.
 Lansbrook Development
 Palm Harbor, FL

Floratine of Florida
 (a division of Tampa Bay Turf)

Public Relations: Talking the walk

BY DARREN DAVIS, CGCS
Olde Florida Golf Club



A couple months ago, I was driving down the road doing what I often do when I drive, listening to a talk radio station here in Naples. The host was discussing the recent Manatee deaths here on the West Coast of Florida. Many people believe that the deaths are related to the bad outbreaks of red-tide that occurred this year.

However, as I drove down the road that day listening to the host, a caller phoned in to give his view on the whole scenario. He started with, "I have lived in Naples for 30 years and when I moved here there was only a handful of them there golf courses. Now, they're hundreds of em' and every where you turn there is another one popping up. I think it's them damn golf courses that are killing the Manatees"

For those of you that are uncertain, Yes, he spoke with a very strong "Florida redneck" accent. Regardless, he spoke, and he was heard!

The host took a middle-of-the-road response to the caller. The host said, "The golf courses certainly might be part of the cause." He also announced, "There is one good golf course in Naples."

Then he then gave a few details on the course. I waited all of about ten seconds

before I called in to respond. I gave a few facts about golf courses including how they benefit the environment as well as the community and I also informed the host that there is more than one golf course in Naples that was good for the environment.

Unfortunately, situations such as these often go unchallenged, or not responded to. After all, we all have jobs to do and certainly cannot monitor every radio or television show.

However, if we want to continue making progress on this issue, the Golf Course Superintendent is going to have to respond to this type of attack, and respond in positive manner.

Remember, people's minds are changed through observation, not argument. So respond with facts, respond in a caring, concerned manner, but most importantly, *be heard*.

The golf course superintendent knows that all golf courses provide numerous benefits to the environment and the community but, unless they let others know, only the few outspoken people on both sides will be heard.

A proactive response

The EGCSA committed \$1,500 to run

Announcement #1

"Golf Courses aren't just a place for golfers, they also harbor lots of wildlife. Thousands of furry and feathered species make their homes in the natural places around professionally maintained golf courses of South West Florida. Expertly maintained courses offer wild life species a place to live, grow, prosper and reproduce all while offering the golfer a place to play. Golf courses utilize large amounts of community waste water thereby reducing the need to dump effluent into the bay and gulf lessening fresh water intrusion. Golf courses are also good for the atmosphere, in that it provides life giving oxygen while cooling the air. Bird houses and feeding stands can be found on many courses encouraging wildlife to make their home where they're protected. The thrill of seeing a wild deer run across a course or a bald eagle overhead is one long remembered. So when you drive by or play a golf course in Southwest Florida, know that their owners and managers do take their ecological responsibilities seriously. The Everglades Golf Course Superintendent Association just thought you might like to know."

Do *You* Believe?

Elvis is *still* alive?

The Tooth Fairy buys *old* teeth?

Heavy nylon flag material is *better*?

If anybody tells you that using heavy nylon material for flags is the way to go - ***don't believe it.*** We thought the same thing years ago. We learned ***why heavy flags aren't better.*** Heavy flags require more wind to do the primary job of a flag which is to ***float gently on the lightest breeze.*** We developed a light weight nylon material that is ***specially treated*** to provide excellent protection against the terrible ultraviolet rays that stream to Earth from outer space. The bad UV rays cause your flags to fade. ***Our material is designed to be used outside.*** It floats and flutters and is easy to see.

Your players can see the difference. Remarkably, ***our lighter material is just as durable as the heavy stuff.*** Southern is the ***original source*** for embroidered golf flags and is the ***leader***

in design application and custom flag construction. We designed the ***strongest*** ribbed-for-strength flag tube on the market and ***we sew our tube into the***

flag. No glue, staples or PVC to break or come loose. ***Guaranteed.*** We cut and sew each one - ***we know flags!*** By the way, we do believe in the Tooth Fairy - why end a good thing!



P.O. Box 2899
297 Dividend Drive
Peachtree City, GA 30269
1-800-233-3853 · Fax 1-800-277-7701





Naples area superintendents, Tim Hiers (left) and Darren Davis (right) join WNOG Talk Radio host, Dr. Kris Thoemke on his show, "Florida Outdoors," to discuss environmental issues and golf courses.

a three-month radio announcement on WNOG 93.5 Talk Radio. The \$125.00 weekly investment includes: production of the announcement; 3 spots per show; 4 sponsorship acknowledgments each week; and 1 sponsorship "Billboard"

opening the show each week for a total of 8 exposures each week.

The announcement is currently being aired on the call-in talk show, "Florida Outdoors" hosted by Dr. Kris Thoemke. The show airs each Tuesday between 11:00

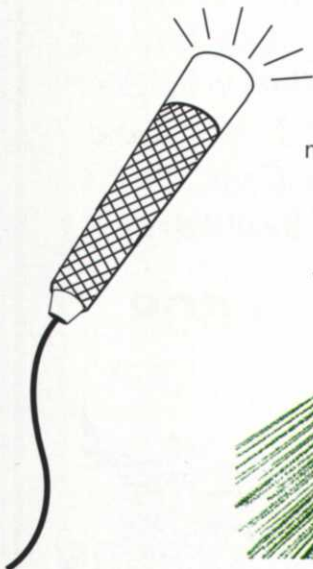
am and noon and on Saturday between 8 am - 9 am.

Dr. Thoemke brings a wide variety of environmental topics to the WNOG-FM audience. According to Dr. Thoemke, "Our water, air, and ever changing land-

Announcement #2

"What do you see when you look at a golf course?

Golfers see a place to enjoy their game and the great outdoor at the same time. Many people see beautiful maintained green areas surrounded by islands of unspoiled natural vegetation and wildlife. And a few see a problem with the environment. These few will tell you that golf courses pollute with fertilizers and pesticides that should be done away with. The truth is these materials are used, by trained, responsible individuals who know what they are doing, and used only in accordance with label instructions approved by the EPA. Established guidelines are strictly followed to insure that the golfers will have a beautiful place to play and the environment is protected. Golf courses are also offer great habitat for numerous wildlife species. Many a school child has enjoyed a field trip to a local golf course where they can see wild animals close up and in their natural environment. So when you drive by or play a golf course in Southwest Florida, know that their owners and managers do take their ecological responsibilities seriously. The Everglades Golf Course Superintendents Association just thought you might like to know."

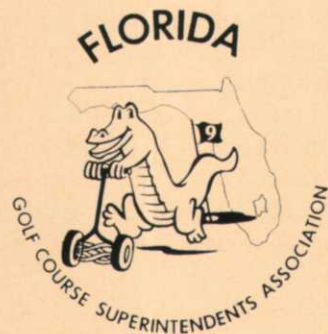


FGCSA to produce video promoting role of golf course superintendent

The Public Relations Committee of the Florida Golf Course Superintendents Association, chaired by Darren Davis, presented a proposal to the Executive Committee at the summer 1996 meeting asking for funding to assist in production of a video promoting the role of the golf course superintendent. By a unanimous vote, the proposal was approved.

This video will promote the role of the golf course superintendent, emphasize the importance of the turfgrass industry to the State of Florida, as well as detail the benefits of golf courses to the environment. The video will be formatted in a way that will be entertaining for all audiences. Potential au-

diences will be golfing members, green committees, club presidents, schools and



even members of the press.

By producing this video, the FGCSA will have a tool available for members to use in educating people on the benefits of

turfgrass and golf courses, as well as stressing the importance of having a well-trained, highly qualified superintendent on staff.

The goal of the FGCSA is to provide all members with a copy of this video at no charge and to make additional copies available for purchase at a reasonable price. The script will be written in a way that is non-confrontational and all film footage will be on Florida golf courses.

The FGCSA is excited about the production of this video and the value it will have as an educational tool for superintendents. Look for the video to be available later this year.

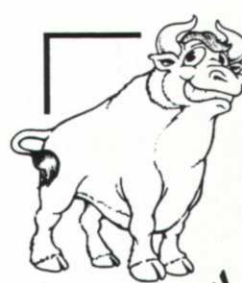
scape, along with the creatures whose habitat is our community all play a part in Florida Outdoors." He added, "Florida Outdoors takes on camping, fishing and all the other recreational activities we enjoy in Collier County."

The announcements were recorded by a professional narrator and read as follows:

The EGCSA recently closed out their books for the 1995 fiscal year and the board voted to fund an additional \$5,000 for public relations. This will include a continuation of the radio announcement on WNOG, as well as a video announcement currently being recorded by the video production company, Epic of Wisconsin.

The EGCSA board hopes to use this video to become a program sponsor for a local television call-in golf show. The video will use wording very similar to the radio announcement and will include footage of local golf courses. As the announcement says, "The Everglades Golf Course Superintendents Association just thought you might like to know."

Editor's note: The FGCSA voted at the Summer '96 Board Meeting in July to fund the production and distribution of the video project. Additionally, Dr. Thoemke has appeared as a speaker at this year's USGA Regional Seminars. Congratulations to Darren and the EGCSA for taking a pro-active leadership role in taking our message to the general public instead of just "preaching to the choir."



We got it!

*El Toro,
Zoysia*

- **Easy to mow**
- **Cold Tolerant**
- **Dark green color**
- **Shade or Sun (great for shady golf tee's)**
- **No. 1 in Drought Tolerance**
- **Disease Resistant**

1-800-273-8608

Tel: (770) 832-8608

Member of:
GGCSA
ASPA
GA Sod
Producers Assoc.



"El Toro" Licensed by University of California

Reach out and teach someone.

The remaining pages of the Stewardship section is a potpourri of examples of ways golf course superintendents can reach out and educate. Each of the examples could be adapted to almost any golf course.

Why should you bother?

Here are the thoughts of eight people who are important to our industry.

“

“Golf course superintendents are much more than “golf course superintendents.” They are managers, caretakers if you will, of natural resources. The results of their efforts can benefit much more than just those that choose to walk, or ride around their course. The entire community, the wildlife of an area, and the water quality of the area can benefit from superintendent stewardship.

Superintendents are doing themselves and the game of golf a disservice by not spreading the message about their efforts to their members, and everyone else in the community. Environmental change, or any kind of change for that matter is brought about through leadership. Leadership includes informing others, and encouraging action to be taken. Be a leader. Share your efforts with others and encourage them to follow your example.”

Ron Dodson, President,
Audubon International

“

“History has shown that people will listen, and respect, a strong united voice. However, a single voice, regardless of how strong or how well spoken, will be dismissed as rebellious chatter.”

Darren Davis, Golf Course Superintendent,
Olde Florida Golf Club

“

“It doesn’t matter what maintenance topic you’re discussing. The important fact is that you share this information with the crew, especially the student interns. This is your opportunity to demonstrate your commitment to doing the best job possible, and show them how everyday actions can positively impact the environment. You not only pass on your experience, but you are raising the awareness of future superintendents.”

Kimberly Erusha, Director of
Education, USGA Green Section

“

“What kids can see, touch and hear sticks in their memories much more than just verbal communication. When a child sees a bird, a fish or other animals at a golf course, then that child will begin to understand and remember that a golf course can be a great home and sanctuary for wildlife. But unless they are afforded the opportunity to experience first hand the multi-faceted benefits that golf courses provide for the environment, then all they have to judge by, and base decisions on, is what they hear through the media — which, historically, has been negative, exaggerated, and often inaccurate. Now, ask yourself this question: How important is it to educate kids, first hand, about your golf course? Remember, while considering your answer, that one day they could be voting about issues that impact you and your golf course.

Tim Heirs, CGCS, Collier’s Reserve
Country Club

“

“First of all, golfers and the general public are not aware of the numerous positive benefits of a golf course to the environment. Secondly, there are others that are firmly convinced that

golf courses have a negative impact on the environment. If golf course superintendents do not take a proactive position and educate as many people as possible, unrealistic regulations will be enforced to the point that a good quality facility cannot be maintained.”

John H. Foy, Director,
USGA Green Section

“

“Most superintendents are in this business because they love their job. Therefore, we owe it to our profession and our peers to let others know of the many benefits that are provided by our golf courses. Golf courses are all unique, and not every golf course is carved out of pristine woods and left undeveloped. Unfortunately these are an exception and are certainly NOT the only good golf courses! Every superintendent needs to understand all of the benefits that they provide daily and more importantly, let others know. If you would like additional information, it is available. It is as easy as calling the USGA, the GCSAA, and also watch your mail for a free video that is currently being written and produced by the FGCSA.”

Darren Davis, Golf Course Superintendent,
Olde Florida Golf Club

“

“What drives a person to choose a career as a golf course superintendent? Is it their love for the game of golf? Possibly. Is it their love of working outdoors with nature? Possibly. Is it their love of implementing one’s own ways of enhancing the environment? Possibly. Is it their love of educating others about the positive benefits of golf courses and their importance to our economy here in Florida? Probably not.

With that in mind, the following article is written for those superin-

tendents who are possibly looking for ideas to use in educating the people they encounter in their every day work environment. I honestly believe that superintendents truly want to teach others to understand what we do as superintendents and why we do it. What I really think stops us from accomplishing this goal is not having the educational tools needed to perform this task all assembled in an easy to read guide. Well, ladies and gentlemen, look no further. The Florida Green is your guide to success.

Shelly Foy and I have been working together on environmental stewardship articles for several years now. This article will highlight accomplishments of superintendents in Florida, as well as other areas of the country. From participation in the Audubon Cooperative Sanctuary Program; to the airing of television commercials about the importance of golf courses; to a new video being produced on the role of a golf course superintendent. These and other ideas will be shared with you. Hopefully from what is provided, there will be an idea mentioned that you can use to start educating others.

Greg Plotner, Past President, FGCSA



“Environmental issues and concerns on golf courses are here to stay. They may very well be the most important and time consuming part of your job for many years to come. With more and more regulations being placed on chemical use, as well as water usage and quality, every superintendent in the state will need to become more aware and protective of the resources you have.

This Outreach and Education article is designed to provide you with examples of things that you can use to educate your golfers, members, and the public about the benefits that golf courses offer to people, wildlife and the environment. Some of the information provided is specific to a particular golf course, but should provide you with some insight into projects that you can implement at your

facility.

The good news is that the word is getting out! Thanks to the efforts of the USGA, Audubon International, the GCSAA and others, people are starting to hear about the positive benefits of a properly maintained golf course. However, who is going to sell your side of the story better than yourself? Don't wait till you find yourself

against the wall having to defend your management and environmental practices.

Take a pro-active stance today. Will it take a little effort? Yes. Will it take a little nerve? Yes. Will it take a little time? Yes. But if you think education is expensive, try ignorance.”

Shelly Foy, USGA Green Section

If You're Looking for Improved Pest Control . . . Du Cor has an Easier Solution!



New Du Cor LEMWET can help improve your pesticide spray application! LEMWET is a lemon extract attractant and surfactant for use with most pesticides. LEMWET attracts nearby pests to your spray. In addition, it's non-ionic surfactants improve spray penetration and bring your pesticide into close contact with pests!

For over 35 years, Du Cor has been coming up with products to fit our customers needs. From liquid micronutrients, humates and fertilizers, to specialty dyes, surfactants, odor counteractants and more, we take pride in finding special solutions that help our clients.

So if your looking for something special to attract a nuisance, or maybe just a different solution to help you grow, give Du Cor a call. We may already have just the solution you need!



Du Cor International Corporation

P.O. Box 593298, Orlando, Florida 32859
407-859-4390 or Toll Free 1-800-382-6735

Create a nature guide

Creating a "Nature Guide" for your golf course would be an easy to implement education and outreach program. It could be as elaborate as a brochure with photos, or as simple as a one page informational sheet left in the proshop for golfers to take with them during their round of golf.

The text at right offers a brief example:

This guide has been created to educate and promote better awareness of the environmental aspects of our course and this property. As you enjoy your round of golf, please note the following programs and practices that have been implemented to help further protect and enhance the environmental benefits of the golf course:

Tree snags are left standing when they pose no safety hazard to golfers. These snags are important for cavity nesting birds such as woodpeckers.

A variety of nest boxes have also been placed around the golf course to attract purple martins, bluebirds, and bats. All of these consume large numbers of insects and in particular, mosquitoes. They will help us reduce our reliance on chemical control treatments to some degree.

Native plants are utilized in landscaping of the golf course to provide habitat and food sources for wildlife, as well as reduce maintenance inputs and aid in water conservation in out of play areas.

Aquatic and shoreline plantings are important for minimizing the potential for pesticide and fertilizer runoff, as well as bank stabilization. Furthermore, aquatic plant material improves water quality, is important for wildlife habitat and is an aesthetic highlight.

Please be aware that the wetland areas between the 5th and 7th holes and the 12th and 13th holes are extremely sensitive sites. Their boundaries are designated by the green topped stakes, and in accordance with USGA Rules, a local rule is in effect. Please see the scorecard for exactly how the local rule applies. We would greatly appreciate your cooperation in not searching for errant shots that go into these sensitive areas.

It would also be pointed out that eradication of weeds and other pest organisms is economically and environmentally impossible. Thus, a management philosophy of establishing and maintaining an acceptable level of control is being practiced as part of our Integrated Pest Management (IPM) program. We hope that golfers will understand and accept a little more pest activity and weeds in the out of play deep rough areas of the course.

Furthermore, the computerized irrigation system allows conservation of water by only applying supplemental irrigation in accordance with the needs of the turf. We encourage you to become aware of these practices and to even implement them at your own home. If you have any questions or if we can be of assistance, please call the maintenance facility and speak to the golf course superintendent. **THANK YOU FOR YOUR INTEREST AND ENJOY YOUR DAY AT THE GOLF COURSE!**

The TPC of Michigan incorporates a nature guide into its scorecard, pointing out specific wildlife to be found on each hole. The wildlife guide for the back nine is enlarged below a reduced version of the entire front side of the scorecard.

HOLE	RATING	HANDICAP	1	2	3	4	5	6	7	8	9	OUT
TPC	127	104	408	411	547	210	394	340	542	182	432	3466
BLULL	127	104	367	383	514	182	360	317	515	160	400	3196
WHITE	127	104	352	363	480	161	316	295	474	152	372	2965
HANDICAP			14	8	2	16	12	10	4	18	6	
TARGETED PACE			:14	:28	:47	:58	1:12	1:27	1:46	1:56	2:11	
PAR			4	4	5	3	4	4	5	3	4	36
RED	127	104	313	309	426	144	267	252	426	112	333	2582
RED HANDICAP			14	6	2	18	12	10	4	16	8	

Measurements are in yards. Approximate yardages are measured to the center of the green. Depth of green is measured to the extreme front edge of the green. Local slope will provide a clear picture of the hole's location.

The hole in this guide contains a small amount of the above items, not suitable for use as bait. The amount of an animal's presence is not a measure of its abundance. The listing is merely a guide to help you identify a variety of species in a particular area. The listing is not intended to be a checklist of the animals in the area.

1: Cardinal (Turkey)
2: Downy Woodpecker
3: Heron
4: Woodpecker
5: Water Lily
6: Frog
7: Ground Squirrel
8: Mallard
9: Killdeer

Play is governed by U.S.G.A. rules. Yellow stakes define water hazards. Red stakes define lateral water hazards. Out of bounds is defined by white stakes or inside of boundary lines, where applicable. The sand waste area to the left of the 2 fairway which contains a green island and tree shall be played as "through the green" up to the green hole. Beyond the green hole the sand shall be deemed a hazard and played accordingly. Cartways on sprayer heads, cart paths, and 150 marker posts are all measured to the center of the green. All players are requested to jump up with the group in front of them. Pace of the day's round should be kept at or better than four hours and thirty minutes (4:30) as noted by U.S.G.A. format. Please fill drink holes with green sand mixture. Please repair your ball mark and one other.

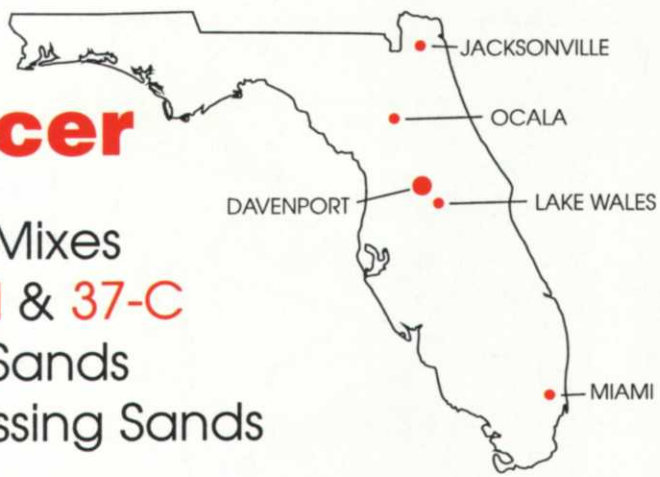
U.S.G.A. guidelines for a "Ball in Environmentally-Sensitive Area" as marked by MUSH signage on Holes 1, 2, 4, 5, 6, 10, 11, 14 and 18. If a ball is in an environmentally sensitive area, which is defined as a water hazard or a lateral water hazard, the player must, under penalty of one stroke, proceed under Rule 30-1.

RED HOLE NUMBERS: Curb Restricted to Paths

10: American Kestrel
11: Redtail Hawk
12: Great Blue Heron
13: Red Fox
14: Wood Duck
15: Pheasant
16: Snapping Turtle
17: Tree Swallow
18: Asters

Florida's Premier Producer

- Custom Blended Soil Mixes
- White Trap Sand 37-M & 37-C
- Premium Greens Mix Sands
- Dry, Sterilized Top Dressing Sands
- USGA Gravels



Call today for prices • test information • free demonstration.




Standard Sand & Silica Co.
1-800-475-SAND (7263) or 941-422-1171

Audubon handout (1)

The Ivanhoe Club

Audubon Cooperative Sanctuary Program



Asset to the Community

Because our existence as a golf course has already had a tremendous impact on this new community, our mission is to make our coexistence harmonious. Our golf course operation is managed with quality environmental and wildlife programs. Homeowners, club members and employees will share in the pride that our club and community are a quality sanctuary for wildlife.

Come and See:

Members and guests of The Ivanhoe Club are encouraged to come and see the on-going work that is aimed at highlighting wildlife at The Ivanhoe Club, right here in Lake County.

"The Bog" is a 12 acre marsh area on the southwest section of our property, set aside for wild life viewing. It is an excellent demonstration of good natural habitat. Space, food, water and cover make for ideal biological diversity. Participate in our wildlife inventory by

reporting your sightings to members of the resource committee after playing golf.

What We do:

Public Involvement with school children The Ivanhoe Club is committed to managing its golf course and grounds with wildlife and environmental quality in mind. By reaching out to the community with educational sessions for school children, periodical writings in local papers and our own club newsletter, we are sending the message that our golf course is a wildlife sanctuary. Habitat Enhancement

The 250 acre golf course is situated on rolling terrain with fields of prairie, oak/hickory timber and smatterings of wetlands and marsh. The every day sightings of wildlife, as well as the reintroduction and preservation of native plant material, makes living next to this golf course special. Golfers too, share an extra outdoor experience. The



Your Sand Man

Choker Sand • Greens Mix Sand • Pea Rock

White Trap Sand • Dolomite • Hi-Cal

Dry Sterilized Top Dressing Sand

All Sands meet U.S.G.A. Specs


E. R. JAHNA INDUSTRIES, Inc.

Lake Wales, FL 33859-0840 • (941) 676-9431

Golf cart card



symbol for The Ivanhoe Club's Audubon Cooperative Sanctuary Program (ACSP) is the purple martin house. This year many pairs of these acrobatic swallows have found refuge for nesting and feeding near our ponds and lakes. Eastern bluebirds are making a comeback at the Ivanhoe Club as many nesting pairs are fledging their young on our golf course. Environmental Planning The Ivanhoe Club has incorporated an environmental plan as part of its long term commitment to managing the grounds. We will maintain this commitment to the environment and stewardship of this land.



WILDLIFE INVENTORY

DATE	ANIMAL/BIRD	LOCATION	TIME OF DAY	COMMENTS

As part of the Audubon Cooperative Sanctuary Program, we would like you to take the time to fill out this card. If you should see any interesting or unusual wildlife during your round of golf, we would greatly appreciate your sharing it with us. Please fill out the above form and drop it off at the Golf Shop. Thank you for your time.

The Huntsville (Ala.) Country Club places this wildlife inventory card on all golf carts. It not only educates by getting golfers involved, it gets them to "buy into" the environmental effort by making them participants.



SERVICES

DESIGN, SALES, INSTALLATION AND SERVICE OF ALL TYPES OF GOLF COURSE AND COMMERCIAL IRRIGATION PUMP SYSTEMS.

FULLY STOCKED WAREHOUSE WITH SPECIFIC EQUIPMENT TO MEET YOUR IRRIGATION NEEDS.

FULLY EQUIPPED, RADIO DISPATCHED TRUCKS PROVIDE 24 HOUR EMERGENCY SERVICE.

COMPLETE CRANE SERVICE.

INHOUSE PUMP REPAIR FACILITY.

MOTOR REPAIR AND REWIND FACILITY.

PREVENTATIVE MAINTENANCE PROGRAMS.

TOTAL LIGHTNING PROTECTION AND INTERFACE SYSTEMS. ULL LISTED INSTALLER.

UNDER WATER WETWELL AND INTAKE CLEANING AND REPAIR.

LICENSED & INSURED ELECTRICAL CONTRACTORS.

PRODUCTS

- SYNCROFLO IRRIGATION PUMPING SYSTEMS
- OTTERBINE AERATORS
- EPS LANDSCAPE PUMP STATIONS.
- EPS HYDRAULIC PUMP STATIONS.
- WESCO FOUNTAINS.
- CLAYTON VALVES & PARTS.
- WESSELS HYDROPNEUMATIC TANKS.
- SELF CLEANING INTAKE SCREENS.
- THOMPSON LIGHTNING PROTECTION EQUIPMENT.
- VERTICAL TURBINE PUMPS.
- CENTRIFUGAL PUMPS.
- REPLACEMENT MOTORS.
- CUSTOM CONTROL PANELS, ETL LISTED

"Servicing South Florida"

Audubon handout (2)

Collier's Reserve Country Club

First Audubon Cooperative "Signature" Sanctuary

Collier's Reserve is a 448 acre residential and golf community designed, constructed, and maintained to very high environmental standards. In 1994, it was awarded the first Audubon Cooperative "Signature" Sanctuary Status for meeting Audubon International's strict criteria. The property is now an international showcase as a "Signature" Sanctuary.

What is Audubon Signature Sanctuary Status?

"Signature" status is awarded only to new communities which are designed and constructed according to Audubon International's precise planning standards and environmental disciplines. It reflects a strong commitment to the eco-systems and is considered the highest rating achievable by Audubon International. The "Signature" Sanctuary program is available in the United States and Canada. More than 30 communities are seeking the "Signature" designation and, to date, only three communities have earned it -- (Collier's Reserve was the first designated "Signature" Sanctuary).

What is Audubon International?

It is a non-profit environmental organization that specializes in sustainable natural resource management. It conducts environmental research, and offers education and conservation assistance to help people improve the quality of the environment.

Our Goal

Collier's Reserve's goal is to preserve and enhance the existing plant and wildlife habitat on the property. In addition, we seek to educate our members, residents and the local community about habitat enhancement and preservation as well as take a proactive and positive approach to sustainable development.

Five Areas of Concentration

Collier's Reserve has focused on five specific criteria in order to achieve "Signature" status. Those five areas are:

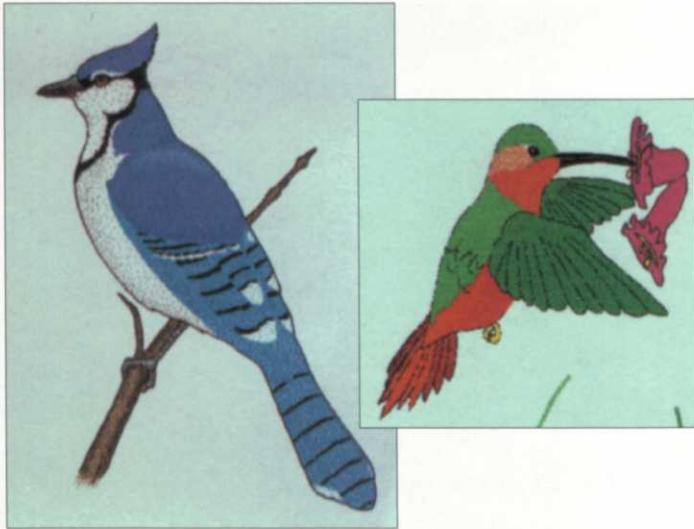
- **Wildlife Conservation** — bird nest box program, special wildlife traffic signs, etc.
- **Habitat Enhancement** — brush piles from downed and trimmed trees; native plants installed, restored and preserved
- **Waste Management** — recycle glass plastic, aluminum; nest boxes made from discarded PVC pipe and 100% post-consumer, recycled plastic.
- **Energy Efficiency** — Efficient air conditioners, white building and tinted outside windows to reflect heat away, T8 ballasts on lighting (the most energy efficient) and sky lights to minimize use of electric lights.
- **Water Conservation** — Prescription irrigation (the strategic location of sprinkler heads to minimize water use) is used to irrigate the golf turf only, as native vegetation requires no watering once it is established. All irrigation is done with effluent (re-used water) and recycled water is used in all maintenance activities.

Did you know?

- The sum total of golf courses in the U. S. absorbs over 13 million tons of dust from the atmosphere in a year
- Each golf course can generate enough oxygen to sustain 4,000 - 7,000 people per year
- Golf courses provide highly productive habitat for wildlife and plants
Golf courses can act as a significant net recharger to the aquifer while purifying water that is being recharged

- Golf courses can serve as significant fire breaks
 - They also provide vital green space for the local community

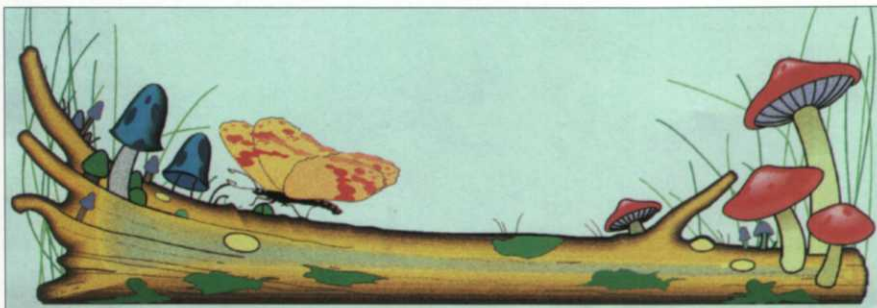




Things you can do at home

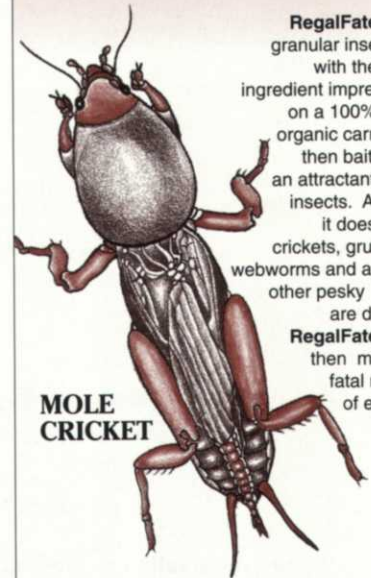
- Put up a nest box for birds
- Set up a bird feeder
- Provide a water source for wildlife drinking and bathing
- Plant trees and shrubs that produce seeds, nuts and berries as a food source
- Plant flowers that produce nectar for hummingbirds and butterflies
- Create a brush pile for small animals as habitat
- Record what you see -- make a list of all birds and animals that visit your yard
- Draw what you see
- Make leaf prints -- paste a leaf on paper
- Collect one leaf from each tree or shrub and find out what it is
- Investigate your neighborhood -- discover wildlife habitats
- Look at your trash -- find ways to recycle and cut back on waste

Commit to being an environmental steward! Join the Audubon Cooperative Sanctuary Program for Backyards. The program provides information and guidance to help you turn your home backyard into a sanctuary. You will get a packet of materials to help you get started and you will receive *Field Notes* —the bimonthly Cooperative Sanctuary newsletter. The newsletter will also provide you with new ideas and suggestions for fun conservation activities that you can do right at home. For more information contact Audubon International, 46 Rarick Road, Selkirk, NY 12158; 518-767-9051



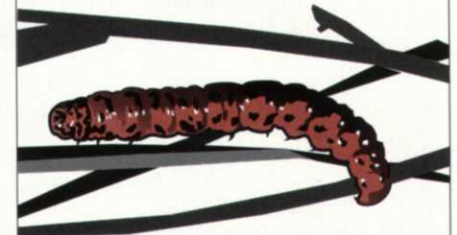
RegalFate™

THE FATAL ATTRACTION FOR INSECTS !



MOLE CRICKET

RegalFate™ is a granular insecticide with the active ingredient impregnated on a 100% edible organic carrier and then baited with an attractant to lure insects. And lure it does. Mole crickets, grubs, sod webworms and a host of other pesky insects are drawn to RegalFate™ and then make the fatal mistake of eating it.



SOD WEBWORM

RegalFate™ is many times more effective because the insect ingests it. Control by contact or vapor action is only partially as effective as the ingested toxicant. Spread the dry granular RegalFate™ for superior results.



Regal Chemical Company

P.O. BOX 900 / ALPHARETTA, GA 30239

PHONE 404-475-4837 / 800-621-5208

Comprehensive public golf course program

Cocoa Beach Country Club reaches out and educates

BY SHELLY FOY
USGA Green Section

Rich Roth, Golf Course Superintendent at Cocoa Beach Country Club has helped his golf course become the first fully certified public golf course in Florida in the popular Audubon Cooperative Sanctuary Program for Golf Courses. Cocoa Beach Country Club has excelled in the Education and Outreach Certification category by implementing the following:

Forming an excellent Resource Committee, including: the community relations director for the City, the owner of a local wetland farm who helps provide expertise on aquatic plants, the City of Cocoa Beach wastewater director, a resident/volunteer who is a member of the local Audubon Society and helps with bird surveys and monitoring nestboxes, a chief reporter for the local newspaper, the environmental analyst for the city, as well as several company representatives providing information on biological controls.

Having a newspaper reporter on the Resource Committee has proven to be an asset in public education, as there have been several articles in the local paper regarding the club's involvement in the



There is a large photo display in the clubhouse of some of the birds found on the golf course. Photo by Richard Roth.



Signs inform golfers of environmentally sensitive areas on the golf course. Photo by Richard Roth.



Caption: Each hole on the course is named after a bird found on the golf course. Photo by Richard Roth

Audubon Program and detailing projects they are working on.

The course has participated in bird surveys, as well as installed nestboxes on property.

Several displays are set-up promoting involvement in the ACSP. All certification certificates are placed in very visible areas.

There is also a large photo display on the birds found at Cocoa Beach Country Club. Each golf hole is named after one of the birds found on the course.

Educational signs are posted on the golf course to inform golfers of naturalization areas, as well as turtle nesting areas.

They encourage golfers and staff, as well as city employees to participate in enhancement projects such as mangrove plantings along the shoreline, as well as monitoring nestboxes and developing a wildlife inventory.

Golf course superintendent Rich Roth has given several interviews for local radio stations discussing the ACSP and Cocoa Beach Country Club's involvement.

Plans are under way to sponsor a local school in the ACSP for schools.

"On any given day at the Cocoa Beach Golf Course, you will most likely encounter such wildlife as alligators, raccoons, rabbits and possums," says Roth. "Resident and Resource Committee member, Phyllis Mansfield recently conducted a bird survey on the golf course and in one hour and a half counted 495 birds representing 37 species."

Rich Roth, congratulations to Cocoa Beach Country Club on becoming a fully certified Audubon Cooperative Sanctuary!

Effective, Environmental Nematode Control

It's true! Other nematicides are extremely toxic; *NEO-TROL* isn't.

NEO-TROL

NEO-TROL is 100% natural and environmentally friendly—it is non-toxic to people and animals, and it doesn't deplete the soil of beneficial minerals and nutrients. Additional benefits include minimal personal protective requirements, easy container disposal, safe for wetlands, completely biodegradable.

Nematodes hate it.

So does the competition.



Tel 713.442.9821
Tel 800.442.9821
Fax 713.590.3353
13802 Chrisman Road
Houston, Texas 77039



NEW PUTTING GREENS!
PLAYABLE IN THREE WEEKS!

HAVERLAND BLACKROCK CORP.

The innovators in Golf Course Construction can rebuild and recontour your greens and have them back in play immediately!

THE

BIG ROLL

SOD

PEOPLE

**LASER
GRADING**

INSTALLATION:

Tees, Greens, Fairways, and Athletic Facilities

■ **USGA PUTTING GREEN RENOVATION** ■



9819 STATE ROAD 7 ■ BOYNTON BEACH, FL 33437
(561) 369-7994 ■ FAX (561) 364-1118

Comprehensive public golf course program

Pumpkin Ridge is a part of a region that supports a very diverse collection of native plant and animal life. This appeal is part of what influenced many of us to become part of this golf club. It is our responsibility as stewards of the property to encourage this plant and wildlife diversity. The method by which we manipulate and manage the golf course property will have a heavy impact on wildlife habitat.

By simply leaving out-of-play areas as grassland, woodland, wetland and other natural habitat, we encourage many species of wildlife. In doing so we must consider both the needs of wildlife and golfers. Traffic flow and speed of play must be considered. Labor once used to maintain out-of-play areas can concentrate on improving areas more likely to affect playability. So, if handled intelligently, managing out-of-play areas for wildlife will add uniqueness to our course, giving golfers a sense of the variety and beauty found in a natural setting.

To help accomplish this goal, the club has become a member of the Audubon Cooperative Sanctuary System. This program provides information, support, guidance, and recognition for enhancing wildlife habitat, conserving natural resources, and protecting the environmental quality on the golf course. Site information, current management strategies and conservation practices have been recorded and sent to the Audubon staff. They are preparing a report which will suggest habitat enhancement and environmental conservation projects suited

to Pumpkin Ridge Golf Club. The owners then determine which projects to pursue.

The following are some of the ideas being considered or currently in practice:

- Allow out-of-play areas to re-vegetate to native plants.
- Link these natural areas together to provide corridors for animal movement within property boundaries and neighboring properties.
- Allow re-vegetation around lakes to provide cover for water fowl, amphibians and reptiles.
- Extend buffer strips around wetlands. Mark wetlands as lateral water hazards to speed play and encourage golfers not to enter.
- Landscape with trees and shrubs having a high value for a variety of wildlife. Supplement this food supply during winter months with feeding stations.
- Leave dead trees and shrubs to provide important nesting and shelter for mammals and birds. Mount nesting boxes for cavity nesting birds.
- Provide brush piles in woodlands to enhance cover for small birds.
- Use organic fertilizers and pesticides when possible. Reduce pesticide applications by spot treating areas when absolutely necessary.

Editor's Note:
The following is an example of an article for use in your club newsletter.

BY BILL WEBSTER
*Golf Course Superintendent
Pumpkin Ridge Golf Club
Cornelius, Oregon*

The idea of encouraging wildlife does not mean we will allow animal populations to increase uncontrolled that would be harmful to the golf course. Moles, geese, and dangerous animal populations will be controlled if necessary. Site maps describing existing and developing natural habitats will be provided in the golf shop. Anyone interested in the sanctuary program is more than welcome to contact me through the administration office.

PREMIUM QUALITY TURFGRASSES IN
THE ANHEUSER-BUSCH TRADITION



Nutri-Turf, Inc.

ONE OF THE ANHEUSER-BUSCH COMPANIES

Specializing in Bermudagrass

- Golf Course Quality (DNA Tested)
- Athletic Fields and Sports Complexes
- "Quickstand" Common
- Big Roll Sod for Fast, Economical Installations
- Greens Height Tifdwarf for Instant Playability
- Volume Discounts

16163 LEM TURNER ROAD
JACKSONVILLE, FL 32218
(904) 764-7100 • TOLL FREE: 1-800-329-TURF



HI-TECH[®]
TURF PRODUCTS, INC.

**"Pump Up The Turf"[®] with HI-TECH'S[®]
Environmentally Safe Turf Care Products!**

**Tech Plex - Trace - Tech Pak Biostimulants
Dimension Granular - Bio Blend - Roots - Bio Tech
Tech Iron - Ironman - Micro Tech - Nitro Plus - Cool Down**

FEATURING: BIO-TECH ORGANIC GRANULARS

(15-4-7) (12-2-12) (8-2-4)

Formulated to be simple, safe and effective

***Provides Superior Water Insoluble Nitrogen Source • Reduces Thatch
Improves Microbiology of Soils • Creates Maximum Turf Health***

We Need You To Grow!

(941) 275-1820 • (800) 299-0911 • Fort Myers, Florida 33919



Editor's Choice.
Blue Heron Reflection by Mark Jarrell,
CGCS Palm Beach National G & CC.

In today's turf world, the camera has become a valuable tool for project documentation and budget preparation. While you're out there documenting, point that lens at some of the beautiful scenes on your golf course and share them with us in next year's Florida Green Photo Contest. It's never too early to submit your entry. We'll hold them until we publish the winners in the Fall 1997 issue. Look for more details in the *Green Sheet* and *Florida Green* in 1997. Good luck!

Joel Jackson

1st Place Formal Landscape.
Spring in Bloom by Mark Jarrell,
CGCS Palm Beach National G & CC.

1996 Florida Green Photo Contest

This is the second year for the Florida Green Photo Contest, which was established in 1995 to showcase the natural beauty and wonder of our golf courses. There are 5 prize categories: Wildlife, Formal Landscape, Native Plantings, Scenic Golf Holes, and Best Overall. The rules are simple: A photo or slide must be taken on a Florida golf course and taken by a superintendent or a member of his staff. Mount it on a sheet of paper and send it in! The best picture in each category is worth a \$100.00 prize. Congratulations to this year's winners: Gary Grigg, Darren Davis and Mark Jarrell. The colors, clarity and images were excellent.





*1st Place Wildlife on the Golf Course.
Red Shouldered Hawk by Gary Grigg, CGCS Royal Poinciana GC.*



*1st Place Scenic Hole.
Shadow Fingers by
Darren Davis, Olde
Florida Club.*

Amnesty Period Announced

Press Release submitted by Pam Bandy, United Horticultural Supply

The State Emergency Response Commission for Hazardous Materials announces the Florida Emergency Response and Community Right-to-Know Act Fee Amnesty period, Oct. 1, 1996 through Dec. 31, 1996. The Florida Emergency Response and Community Right-to-Know Act of 1988 requires non-governmental facilities subject to the requirements of the Federal Emergency Planning and Community Right-to-Know Act

to pay registration fees due each year on March 1. Facilities are required by the SERC to pay fees for each year subject dating back to the enactment of the state law in 1988.

"This amnesty period will benefit first time self-reporting facilities subject to EPCRA and the state imposed fee requirements," explained Gregg Dawkins, planning manager with the Department of Community Affairs' Hazardous Mate-

Question and answers on the amnesty

1. What is the Emergency Planning and Community Right-To-Know Act (EPCRA)?

The Federal Emergency Planning and Community Right-To-Know Act, passed by Congress in 1986, requires facilities with certain hazardous materials present in amounts exceeding established thresholds to provide facility and chemical specific information to the State Emergency Response Commission and their Local Emergency Planning Committee(s).

2. What is the Fee Amnesty period?

The fee amnesty period is for private companies to have an opportunity to report themselves and not be charged any fines.

3. When will this fee amnesty period be in effect? Is there a grace period after the deadline?

October 1, 1996 through December 31, 1996. This will be the only opportunity for amnesty from prior year fees.

4. Who does this fee amnesty period apply to?

First time self-reporters who are subject to EPCRA but have not complied in prior years.

5. What type of facilities are covered?

Examples of common facilities that would report — cold storage facilities, water/waster water treatment plants, agricultural interests, boat manufacturers, resorts (swimming pools)/amusement parks, auto dealers, gas stations, chemical

manufacturers/suppliers, golf courses, LP gas facilities and hospitals.

6. If my facility has reported in the past will this fee amnesty period apply to us?

No, this amnesty period is for FIRST TIME reporting facilities ONLY.

7. Who's responsibility is it to report a facility during the fee amnesty period?

All reporting will be self-reporting. If your facility has been notified by the SERC in the past, you may not qualify for the amnesty period.

8. What are some examples of chemicals that would trigger reporting?

There are over 500,000 chemicals and mixtures that are covered under EPCRA. Common chemicals reported include chlorine, ammonia, gasoline/diesel, methyl bromide, gramoxone, styrene, nemacur, propane and sulfuric acid.

9. What are the advantages of filing during this fee amnesty period?

Facilities that fall within the guidelines will have all prior annual registration fees waived dating back to 1988.

10. What are the disadvantages of NOT filing during this fee amnesty period?

Facilities that fail to take advantage of this fee amnesty period and are later identified and noticed by SERC will have to pay fees for all years they have been subject to reporting dating back to 1988. For some facilities, this could result in thousands of dollars.

11. Are there other reporting requirements related to EPCRA and the Florida Emergency Response and Community Right-to-Know Act?

Yes, there are other reporting

requirements. Facilities covered under EPCRA are required to submit facility and chemical specific information to the SERC, Local Emergency Planning Committee (s), and local fire departments.

12. Does the fee amnesty period cover additional reporting requirements?

No, the fee amnesty period is for state-required annual registration fees only.

13. Who must pay the annual registration fee?

Every March 1, any private facility subject during the previous calender year to either Section 302 or Section 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986, EPCRA, must pay the annual registration fee.

14. Who is subject to Section 312?

The owner or operator of any facility that has either of the following:

- 1) any of the EHSs that meet or exceed the TPQ, or 500 pounds, whichever is less; or
- 2) any of the hazardous chemicals that meet or exceed 10,000 pounds for which OSHA requires an MSDS to be maintained.

15. Who can my company contact for additional information and a reporting form?

For additional information contact the Department of Community Affairs' Hazardous Materials Planning Section at (800) 635-7179 or (904) 413-9970 between 8:00 a.m. and 5:00 p.m., Monday through Friday. Reporting forms, chemical lists, "How to Comply" manuals and other information about EPCRA are available at no charge.

Facilities that fail to take advantage of this amnesty period and are later identified and noticed by the SERC will be required to pay for fees for all years they have been subject to reporting dating back to 1988

rials Planning Section.

"Facilities that fall within these guidelines will be granted a waiver of past due annual registration fees if the owner or operator reports between Oct. 1, 1996 and Dec. 31, 1996. The amnesty only covers annual fee obligations for past years and does not exempt a facility from federal reporting obligations for those years."

Dawkins added that facilities that have reported under EPCRA previously or have been notified by the SERC in the past would not qualify for the fee amnesty period. "The amnesty period only applies to owners or operators of facilities who are first-time self-reporters and who have not complied as of Oct. 1, 1996."

EPCRA was passed by Congress in

1986 and requires facilities with hazardous materials present in amount exceeding established thresholds to provide facility and specific chemical information to the SERC, the Local Emergency Planning Committee and the local fire department.

Some examples of common reporting facilities would be cold storage facilities, water/waste water treatment plants, agricultural interests, boat manufacturers, resorts (swimming pools)/amusement parks, auto dealers, gas stations, chemical manufacturers/suppliers, golf course, LP gas facilities and hospitals.

Over 500,000 chemicals and mixtures are covered under EPCRA. Common types of hazardous substances that may be present at a facility would be chlorine,

ammonia,

gasoline/diesel, methyl, bromide, gramoxone, styrene, nemacur, propane and sulfuric acid.

"Facilities that fail to take advantage of this amnesty period and are later identified and noticed by the SERC will be required to pay for fees for all years they have been subject to reporting dating back to 1988," added Dawkins. For some facilities, this could result in thousands of dollars."

For further information or assistance, please call the Department of Community Affairs' Hazardous Materials Compliance Planning Section at (800) 635-7179 or (904) 413-9970.



Now a single fungicide that provides
CONSISTENT CONTROL of:
• *Brown Patch (Rhizoctonia)* • *Leaf Spot* • *Dollar Spot*
• *Anthracnose* • *Fusarium & More* • *Plus Patch Diseases*

*New Standards For
Turfgrass Excellence*



REGAL CHEMICAL COMPANY / P.O. BOX 900 / ALPHARETTA, GA 30239 / 1-800-621-5208

Clippings

Insecticides, pesticides part of nature

We read with interest the Feb. 27 article in the *Sarasota Herald-Tribune* about the young boy who allegedly is having problems with pesticides. More than 99 percent of the insecticides and pesticides humans come in contact with are produced naturally by the fruits and vegetables we eat. Fewer than 1 percent of the insecticides and pesticides are man-made. Of those naturally occurring substances, half, if ingested in excessive quantities, will cause cancer or other detrimental effects. The reason they are safe is that we do not consume excessive quantities of these goods.

The use of pesticides and insecticides is very rigidly monitored and controlled by various governmental agencies including the Occupational Safety and Health Administration. Most individuals with asthma are allergic to a variety of naturally occurring aeroallergens. Currently, in Florida, we are in the midst of the worst allergen season of the year. Eleven oak species and many other trees bloom at this time of year and disseminate tons of pollen into the air. Many individuals

with allergic rhinitis and asthma are allergic to these pollens and develop asthma and hay fever from inhaling them. Fifty percent of Americans have a cat or dog in their home. Dust mites and cockroaches also exist in Florida homes. These animals are responsible for many indoor allergens and thus cause allergic respiratory problems.

The words "pesticide" and "insecticide" engender fear and inappropriate emotional reactions by many lay individuals. When these substances are used properly, they won't cause health problems, even in allergic individuals.

It is important for society to continue to rely on objective scientific studies which indicate that pesticides and insecticides, used correctly, are not only essential to our quality of life, but are safe to humans.

Hugh H. Windom, M.D.
Clinical Assistant Professor of Medicine
Richard F. Lockett, M.D.
Professor of Medicine, Pediatrics and
Public Health
College of Medicine, University of South
Florida

Submitted by Mack
Baugh, CGCS

Story originally
published by the
Sarasota Herald-
Tribune

Clippings

On Green Speeds and Golfers

Recently, I had occasion to dine with a famous golf course architect. I respect this man's work very much, and value his opinion. And as with so many conversations in life, I seem to think of the perfect thing to say *after* we've parted ways.

This is one change to get my "brilliance" to the light of day.

Among the topics that we discussed that night were issues related to green speed. How fast is too fast? What is acceptable to the amateur golfer?

Anyone who has ever played golf with me knows that I'm the definition of the "average"

golfer. For this reason, not mentioning the fact that I am never without opinion, I feel that I am more than qualified to speak to this "speed-thing," and further muddy the water for us all.

Pontification. Stimpmeter readings (aka green speeds) are a lot like driving a car. First, speed is relative, and dependent on the traffic and road conditions. Second, the faster you go the less margin of error you assume. And lastly, 99.44% of us are entirely ill-prepared for speeds we claim to want.

Speed is Relative. All players on a given course have to putt on the same greens. Speed

Clippings

is relative only in terms of how hard you hit the ball.

Smoothness is always more important to a surface's quality than sheer speed. Have you ever been on a dirt road where 35 mph was too fast for safety? Just as smoothness allows drivers to be more aggressive on the road, smoother, or truer, putting surfaces afford the player a more aggressive approach putting.

Margins for Error. On Sunday afternoons on the Indy Car circuit, Al Unser, Jr. doesn't have the luxury of watching the scenery. Yes, he has a very smooth surface to traverse, but he's going too dang fast to notice the guy with the rainbow wig holding the sign that says "John 3:16." His margin of error (that difference between winning, losing and crashing his body into tiny bits) is smaller than you or I will ever know.

Slower putting surfaces allow greater

margins for our inevitable errors.

The 99.44% of Us. Although we might like to think that we are proficient enough to drive a car at 213.567 mph at Indianapolis Motor Speedway, in actuality we're poorly skilled to take our cars even close to 100 mph. That's why there are laws. And even if we were skilled enough, would we want to drive that fast every weekend? Probably not.

I mean this in the best possible way, but golfers don't know squat about green speed. The same bravado that takes us to the back tees "... to see all of the course," drives us to force golf course superintendents to make greens unmanageably fast. For those of use who do not make our living on one of the tours, speed is relevant only if we missed our chance to practice before the round. Beyond that, we wouldn't have a clue as to how fast Mr. Stimp's meter said.

South Florida Grassing, Inc

Over 30 Years in the Grassing Industry

419 SOD • 419 SPRIGS

- We provide reworking and planting services for fairways, tees and greens
- Hydro-mulching, grassing and mulching
- Our grass is grown in Hobe Sound on gassed, sand-based medium
- Rolled sod available
- Tifdwarf - 1993 University of Georgia Release Lot #G8003-JK

(561) 546-4191

(561) 746-7816

800-483-4279

P.O. Box 725
Hobe Sound, FL 33475

by Skip Lynch,
Technical Agronomist

Seed Research of
Oregon, Inc.,
Corvallis, OR

Does knowing this mostly arbitrary number affect our day's approach to putting? Do we change putters to accommodate speeds with every daily variance? Would we choose not to play if the green speeds didn't meet our tolerances?

Golf is, after all, an enjoyable pursuit. There is nothing enjoyable about reaching a green in regulation and proceeding to three-whack for bogey because the greens were too fast. Believe me, I know this for a fact! Neither are five and a half hour rounds of golf.

Two putts are always faster and cause less wear to the putting surface than three- or four-putts. Yet the faster the green's speed, the less frequent two-putts become to the amateur golfer. . .slower rounds of golf.

Oh, occasionally it is good to have one's

skill tested. But this is what club championships and other tournaments are for. Frankly, I don't need that kind of testing twice weekly.

Ladies and gentlemen of the jury. . .golfers are whiners. We tell more lies, find more faults and overestimate our skills worse than fishermen. And the poor sap who bears the brunt of this ignominious behavior, often at the cost of his/her career, is the golf course superintendent.

My dinner companion asked me what it would take to make greens smaller and still reduce wear in the cupable areas. There are only two ways to do this. Make the amateur golfer a better putter or slow the green speeds down. Neither, I'm afraid, is likely to happen anytime soon.

Clippings

Reducing our fears. . .Pesticides are medicines, too!

If your child's school informed you that there was an incidence of head lice in the classroom and suggested that you treat your child's hair, you would probably go to the drug store, buy a shampoo containing an insecticide and wash your child's hair. There would be no hesitation or second thoughts. You wouldn't consider whether you or your child should wear protective clothing. It's a medicine.

If you suffer from athlete's foot, a common treatment is to rub the affected area with a cream that contains mycotin or myconazol, medicine known to relieve the symptoms. Again, few people would hesitate to use the ointment because it's known as a medicine.

To protect your family dog from fleas, you might put a special collar on the dog that will ward-off fleas. While we may not think of the collar as a form of medicine, neither do we hesitate to play with the dog, nor do we have a serious concern about the effects of the collar on the dog's health.

Miticides, fungicides and insecticides used

to treat people or pets are generally thought of as useful, beneficial and helpful. We call them medicines.

Why then, when a product with the same active ingredient is used to treat mites, disease and insects on grass or trees do many people think of it as dangerous, health-threatening pesticides?

Are medicines good for us and pesticides bad for us?

That's the perception held by many people, yet according to Dr. Joseph M. Vargas, a professor of botany and plant pathology at Michigan State University for the past 25 years, the reality is that many "medicines" and "pesticides" use the identical chemical ingredients. He is concerned that the word "pesticide" attaches unfounded fears to products that are as useful and beneficial to plants as "medicines" are to people. Dr. Vargas points out, "The drugs that we call medicines are really human pesticides. It doesn't matter if a bacterium or fungus is attacking a human or a plant; if you are

going to control it, you have to use a chemical to kill the pathogen. Whether you call this chemical a medicine or a pesticide technically doesn't matter, but it does as far as the public perception is concerned."

Some of his surprising examples of ingredients that are common to medicines and pesticides include the common use of a cream to control athlete's foot that contains mycotin or myconasol, the same active ingredient that's used to control fungal diseases in turfgrass. Lindane is the medicine used to control human body lice and it's the same ingredient used to control spider mites in plants. Another of Dr. Vargas' examples is the widespread use of dog collars containing carbaryl to control fleas, yet some pet owners have a fear of exposing their pet to a yard treated with the same chemical used to treat

the lawn for insects. Pneumonia, strep throat and tuberculosis are controlled by antibiotics such as streptomycin and oxytetracycline, yet according to Dr. Vargas, while we will put these materials into our bodies through our digestive tract and veins, we would be required by law to wear a respirator and protective clothing to apply them in our yards!

While not suggesting that pesticides are always safe, Dr. Vargas believes that some in the media have unnecessarily scared the public through a lack of scientific understanding and accurate reporting.

*The Turf Resource
Center*

*Turfgrass Producers
International*

*As quoted in the
Florida Turf Digest,
May/June 1996*

Duststorms Got Members Trading Carts For Camels?



After you've done everything else right, why take short-cuts on course maintenance with ag-grade fertilizers? Sunniland's custom blends are formulated specifically for your course. Uniformly granular, too, eliminating hazardous dust on the course, your equipment, pools and members! The course will look superb and so will you. We knew you wouldn't mind if we cleared the air on course maintenance, so phone our Sunniland Golf Products Representative today.



Post Office Box 8001 • Sanford, Florida 32772-8001 • Phone (407) 322-2421 or (800) 432-1130

I hope this turns out to be an interactive article. I really, really want to hear other superintendents' thoughts and lines of reasoning about our fund-raising efforts, both FTGA and FGCSA, and related topics.

Specifically, I'd like to know why so many superintendents won't participate in the various programs we've established over the past few years to raise research dollars, no matter how simple we've tried to make them. If it's a simple case of apathy, I'll assume that's the answer if no one takes the time to call or write me. If someone has a strong objection or philosophical difference with the programs we've developed, I'd really

appreciate hearing from you to explain your viewpoint. Shoot, you might convince me!

I have a hard time understanding why superintendents should spend so much time and energy trying to raise money for the basic turf research that benefits the very golfers who often end up firing them. I've just accepted the fact that it needs to be done, and superintendents might as well be the ones at the forefront.

Many superintendents have always been willing to do their part, hoping their example would inspire others to do likewise.

Why then do some superintendents refuse to even sign their name to a rebate program that requires no other effort on their part? Why do some buy generic Orthene to save a few dollars when they know Valent will contribute to turf researched based on sales volume? There have to be very good reasons for non-participation, and I'd like to find out what they are.

If the budget is so tight at your club that the few extra dollars you save on generic Orthene is critical, then, please, I'd like to know that. If you and/or your club contribute to turf research in other ways and this method is redundant, then I'd like

to know that also. I'm sure there are many valid reasons for non-participation that I haven't thought of, and I sincerely want to get a handle on why these programs aren't working so that we can shift our efforts into more productive ventures.

Even if your response is that you just forgot about the programs, I'd like to hear from you. There's only one answer that will truly upset me — the superintendent who just doesn't care, who thinks he commands the salary and prestige he does solely because of his own accomplishments. Someone who doesn't believe he should give something back to the professions that sustains him, or lend a helping hand to fellow superintendents who devote so much of their time and energy on his behalf trying to make this industry and our chosen profession better for all of us.

I understand that not everyone can get involved to the same degree — some of us are blessed with supportive owners and/or management, while others are forbidden from even attending industry functions — but everyone can contribute something, even if it is only moral support to those pulling the wagon.

If you disagree with the direction the wagon is going, then either hitch up to help pull and steer, or take the time to constructively voice your opinion. Throwing rocks at the horses shows an arrogance beyond belief.

Golf may be big business, but only one in ten Americans plays it, leaving 90% of the population who could care less about our problems and, even worse, can be persuaded to view us as non-essential enemies of the environment. Compared to most other professional associations, superintendents and turfgrass associations are small potatoes, making unity and strength in numbers vital to the success of our groups' goals.

Think about these things when examining your personal role as a golf course superintendent performing within your chosen field of endeavor.

*Everyone
can
contribute
something*

Mark My Words



Mark Jarrell, CGCS Assistant Editor

VERTI-DRAIN®



Comment from Walter Woods

"Deep aeration on an intensively-used golf course is vital if the grasses which we require are to survive.

We purchased our first Verti-Drain back in 1983 and very quickly bought a second. Both these machines have been working on a continuous basis providing excellent results and utilizing only a minimum of spare parts."

**Walter Woods,
St. Andrews Links' Golf Course Supervisor**

**If it works for St. Andrews,
shouldn't you try it?**

**For a free demo, call Art Lewis
Lewis Equipment Company
1-800-451-5622**

*Politically
incorrect
golf*

**Green
Side Up**



Joel D. Jackson, CGCS Editor

The FGCSA is embarking on an ambitious, long overdue public relations program Better say “public education program”. Having relations with the public can be misconstrued. It came to me that much of golf is using politically

incorrect language that could make our message unclear. To minimize legal fees for incorrect golfspeak, please pay attention.

Single. Formerly referring to one person playing golf by himself. Singleness now is a sensitive parenting and restaurant dining alone issue. In the future please refer to a “single” as a “onesome.” It’s more inclusive as it puts the

single in with all the other “somes” in golf.

Tee off. Once referred to as the act of putting the ball in play on each hole, it has now been changed to avoid the inference of becoming agitated. See “teed off.” The accepted term is, “Intent to advance the ball.” The word intent has been included since it is apparent that not everybody advances the ball, thus becoming teed off.

The USGA has taken us out of the “trap” and into the “bunker,” but the warlike sound of bunker is already being rejected in favor of “silicon valley,” which sounds more like going to a picnic on the beach than doing battle in a bunker.

Bogey and double bogey. The traditional terms for one and two over par have come under attack by Lauren Bacall, the widow of actor Humphrey “Bogey” Bogart. Her contention is that nobody likes bogies and therefore attendance at Bogart film festivals is declining. The USGA is entertaining nominations for new terms. Suggestions to date have included: Rambo or Rocky I & II; a Mo and a Curly; and dip and double dip.

Mow the grass. Once a staple of golf course maintenance jargon. This term as been subverted and subjected to street slang and is often interpreted as “mo grass” which has serious drug possession implications. The term “grooming the turf” is safer and the operator can possess a whole trailer full of turf instead of

just one ounce of grass.

“Effluent, reclaimed, and re-use” all conjure images of waste byproducts and water of a second hand nature. Gray water! Yuck! I won’t even go there! Spin doctors are tapping the perfume industry lexicon and trying the internationally popular “eau de toilet” to test reactions. The jury is still out on this one.

“Weed Whacker” was replaced by “string trimmer” by the President’s Council on Violence several years ago to lower crime rate statistics. Attempts by liberals to draw parallels between Green Thumb associations and The Back Hand mobs were wisely rejected by Congress

“Pest control technician” has become “plant protectant applicator” to avoid any suggestion of pests on a golf course. The new term has a light breezy organic feel, not unlike “salad shooter.”

The old familiar “barn” has been replaced by the new “Facilities And Rolling Stock Enclosure.” While many “barns” are still antiquated and unsafe in design and function, they can now be better known as F.A.R.S.E.’s.

One of the toughest terms to update has been “superintendent!” In a necessary move to modernize the noble but menial sounding “greenkeeper” the term superintendent is steadily falling from favor. However, a case can be made that it is, oddly enough, exactly what it means. Coming from the Latin words (*super* - meaning above and beyond) and (intendant-superlative form of the French and Latin *intendens* - meaning a person who has the direction or management of some public business or the affairs of an establishment. I’ll bet we all know some superintendents that are always going above and beyond to get the job done.

While that isn’t funny, it is a lot better than being known in the future as the “agronomic advisor” to your club’s Committee on Agricultural Conditioning Affairs or CACA. Advisors involved too much in CACA lately have had to resign hastily. I’d rather be known as the guy the club hired who “intends” to keep things “super!”

Hey! Be careful out there — and whatever you do, keep the green side up!

SOMEWHERE THIS YEAR A SUPERINTENDENT PLANTED THE *ONE MILLIONTH POUND* OF CYPRESS POA TRIVIALIS!

That's right, in an unprecedented time span of only 4 years, certified Cypress Poa trivialis has taken the market by storm. Superintendents from Las Vegas, Palm Springs, Phoenix and across the sunbelt states are using certified Cypress in record numbers.

University tested for years at such prestigious turf trials as the University of Florida, the University of Arizona and Mississippi State University. Certified Cypress keeps coming up first in establishment, color, putting speed and quality. When mixed with

creeping bentgrass or perennial ryegrass, exceptional greens and fairways are the result. What more could you ask for?

For excellent transitional qualities, specify Certified Cypress.




Distributed by:

Terra Int'l.
Plant City Fla.
813-752-1177

Coastal Turf Supply Co.
Savannah, GA
912-353-8815

Photo of 70% Cypress Poa trivialis and 30% Trueline Creeping Bentgrass Green courtesy of Banyan Golf Club in Palm Beach, FL. Dan Jones, CGCS Golf Course Manager



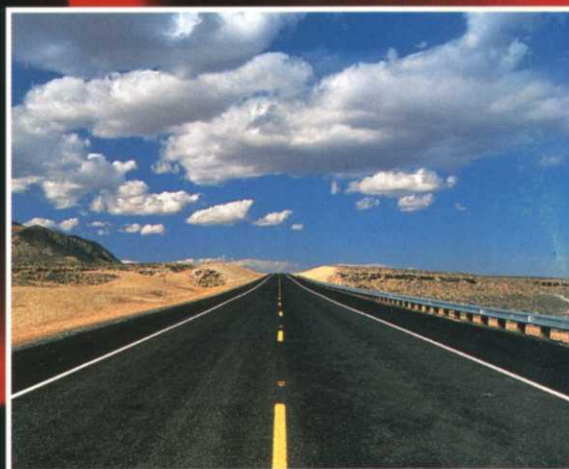
TMI
Turf Management Inc.

*Perfecting
the Art
of
Overseeding™*

33390 TANGENT LOOP
TANGENT, OREGON 97389
800-421-1735

FAST-PUTTING, LOW-MOWING, GOOD LOOKING CERTIFIED CYPRESS!

SO MANY ROADS



SO FEW EASY ANSWERS

EQUIPMENT BUYING DECISIONS IN TODAY'S WORLD CAN HAVE FAR-REACHING CONSEQUENCES. HELPING OUR CUSTOMERS TAKE THE RIGHT ROAD HAS CONTRIBUTED TO THE SUCCESS WE'VE ENJOYED REPRESENTING JOHN DEERE AND OTHER FINE QUALITY PRODUCTS IN FLORIDA AND THE DESERT SOUTHWEST.

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

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

CALL US. WE'LL BE THERE FOR YOU.

2020 SEABIRD WAY
RIVIERA BEACH, FL 33404
(561) 842-0440

417 CENTRAL PARK DR.
SANFORD, FL 32771
(407) 323-9555

11820 LACY LANE
FT. MYERS, FL 33912
(941) 275-4441

72104 CORPORATE WAY
THOUSAND PALMS, CA 92276
(619) 343-0270

3137 WEST POST RD.
LAS VEGAS, NV 89118
(702) 263-4512

71137.2725@compuserve.com

