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CONTENTS



SPRING
1996

FOREWORDS PRESIDENT'S MESSAGE, KUEHNER, GUEST EDITORIAL 6
Florida raised the standard as host for the annual International Golf Course Conference and Show. Dale Kuehner describes the GCSAA voting process. Monica Elliott urges golfers to play the game without playing with people's lives.

SPOTLIGHT PRESIDENT'S AWARD, GCSAA GOLF CHAMPIONSHIP 18
Mike Barger, "Mr. Dade County," is one of three superintendents honored in 1995 for lifetime service to the Florida GCSA. Team Florida ended a 13-year victory drought in the annual GCSAA golf championship.

COVER STORY AND A MARSH RUNS THROUGH IT 28
Marsh Landing Country Club rests gently on the marshlands of Cabbage Creek in upper St. Johns County. Superintendent Steve LaFrance has been managing this gem for seven years..

STEWARDSHIP AUDUBON SIGNATURE STATUS, LEADERS OF TOMORROW 49
Greg Plotner and Shelly Foy look at the Conservation Report as they describe the process of becoming a certified Audubon Cooperative Sanctuary. The Champions at Summerfield is the nation's first public golf course to achieve and maintain Audubon Signature status, Olde Florida Club is an environmental classroom for a nearby school.

HANDS ON INSECT CONTROL, TOP DRESSING PROGRAMS 72
Editor Joel Jackson reports on a promising new product for mole cricket control and half a dozen top superintendents condense their insect control and top dressing programs into two handy tables. Matt Taylor describes the IPM approach at Collier's Reserve CC.

REGULATION ENVIRONMENTAL HEALTH AND SAFETY 78
OSHA is not going to give up its huge source of revenue — fines — without a fight.

SUPERINTENDENT'S JOURNAL BOTH SIDES OF THE FENCE 82
Scott Wahlin is a superintendent-turned sales rep-turned superintendent. He has a unique perspective on both professions.

AFTERWORDS LETTERS, CLIPPINGS, JARRELL, JACKSON 86
Letters to the editor and clips from other publications are additions to the section. Mark Jarrell calls for higher goals in turfgrass research. Joel Jackson looks at some common perception problems facing superintendents.

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Advertiser Index

AgriGro	61	North Georgia Turf	87
Agro-Tech 2000	66	Nucrane Corp.	C3
Aimcor	51	Nutri-Turf, Inc.	83
Almar Chemical Co.	93	Otterbine-Barebo Inc.	93
Aquatrols Corp. Of America	9,59	Parkway Research Corp	30
Arbor Tree & Landscape	66	Partac Peat Corp	90
Biosys	57	Pennington Seed	39
Boynton Botanical	35	Pike Creek Turf Farms	30
Brevard Oil Equipment Co.	93	Rain Bird Sales Inc	1
Century Rain-Aid	11	Regal Chemical Co.	67,90
Ciba Turf Division	4,36	Rhone Poulenc	15
DuCor International	91	Roots, Inc.	95
E.R. Jahna Industries	79	Sandtrap Services	85
Environmental Waterway Mgt	73	Smithco	55
Floratine of Florida	85	South Florida Grassing	71
Florida GCSA	21	South Florida Turf Products	14
Florida Silica Sand	84	Southern Golf Products	63
Go-For-Supply	87	Spread-Rite, Inc.	85
Golf Agronomics Supply	80	Standard Sand & Silica	81
Golf Ventures	45	Subaqueous Services Inc	48
Harrell's, Inc.	13	Sullivan Electric & Pump	77
Haverland Blackrock Paving	89	Sunniland Turf Products	10
Hi Tech Chemicals	96	Terra Asgrow	24,53
Howard Fertilizer Co.	23	Tifton Physical Lab	86
ISK Biosciences Corp.	43	TMI Turf Merchants	7
Jacobsen Dealers of Florida	C2	Tom Burrows Turfgrass Svc	73
Lake City Community College	27	Toro Dealers Of Florida	Insert
Lake Doctors	14	UAP/Florida Inc	31
Laserturf	89	Valent USA	41
Lesco, Inc.	C4	Vigoro Industries	47
Liquid Ag Systems, Inc.	33	Zeneca	19
Milorganite	16		

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A Job Well Done

President's Message



Greg Plotner, CGCS
President
FGCSA

It will be interesting to see if the GCSAA International Conference and Show can possibly get any better than this year's spectacular event in Orlando. From the educational sessions to the trade show to the many fine receptions, this year's show will not be forgotten anytime soon.

And how about Florida and its many fine superintendents being recognized for outstanding achievements at almost every affair during the conference and show? From our winning golf team (Florida #1) of Kevin Downing, Mark Hopkins, Buck Buckner and Jim Osborne to our National Environmental Steward Award Winner, Darren Davis, to Joel Jackson, our Editor-in-Chief of the top award-winning magazine, *The Florida Green*, Florida was a shining star among its peers.

The FGCSA, with the assistance of our industry's many valuable affiliates, also took top honors for its "gala" reception held on Friday night. Paul Crawford, you really outdid yourself on this one. How can you ever top it? Thanks goes to you from the FGCSA and the reception's sponsors for all of your hard work and a job well done!

Congratulations also go out to Gary Grigg, CGCS, now past president of the GCSAA, for his commitment and dedication to our profession through the years. Gary's presidential term of this past year will undoubtedly not be

forgotten, for he worked hard with his staff to help transform the GCSAA into a much more member-friendly organization.

The room on Friday night, in which the President's Reception was held in Gary's honor, was filled with many people who have had the opportunity to work with this great man, myself being one of them. For you see, my coming to Florida 10 years ago to be the golf course superintendent at Tampa Palms Golf and Country Club was because of Gary's recommendation. Many thanks to you, Gary, not only from me, but from everyone in the FGCSA.

Also, there were many other superintendents who are members of the FGCSA who received awards or were honored in Orlando that I have not mentioned. To all of you, congratulations on a job well done. All of our members should be proud of the accomplishments that were achieved by these FGCSA superintendents.

On another note, as expected, all bylaw changes for the GCSAA were approved as written. These changes carry some impacts with them that will affect the FGCSA and all of the local chapters. The Executive Board of the FGCSA is working on these bylaw changes and also on the affiliation agreements at this time. Hopefully all of the chapters will be able to review these changes and agreements before the Poa meeting in May. If anyone has any comments or concerns, please feel free to give me a call.

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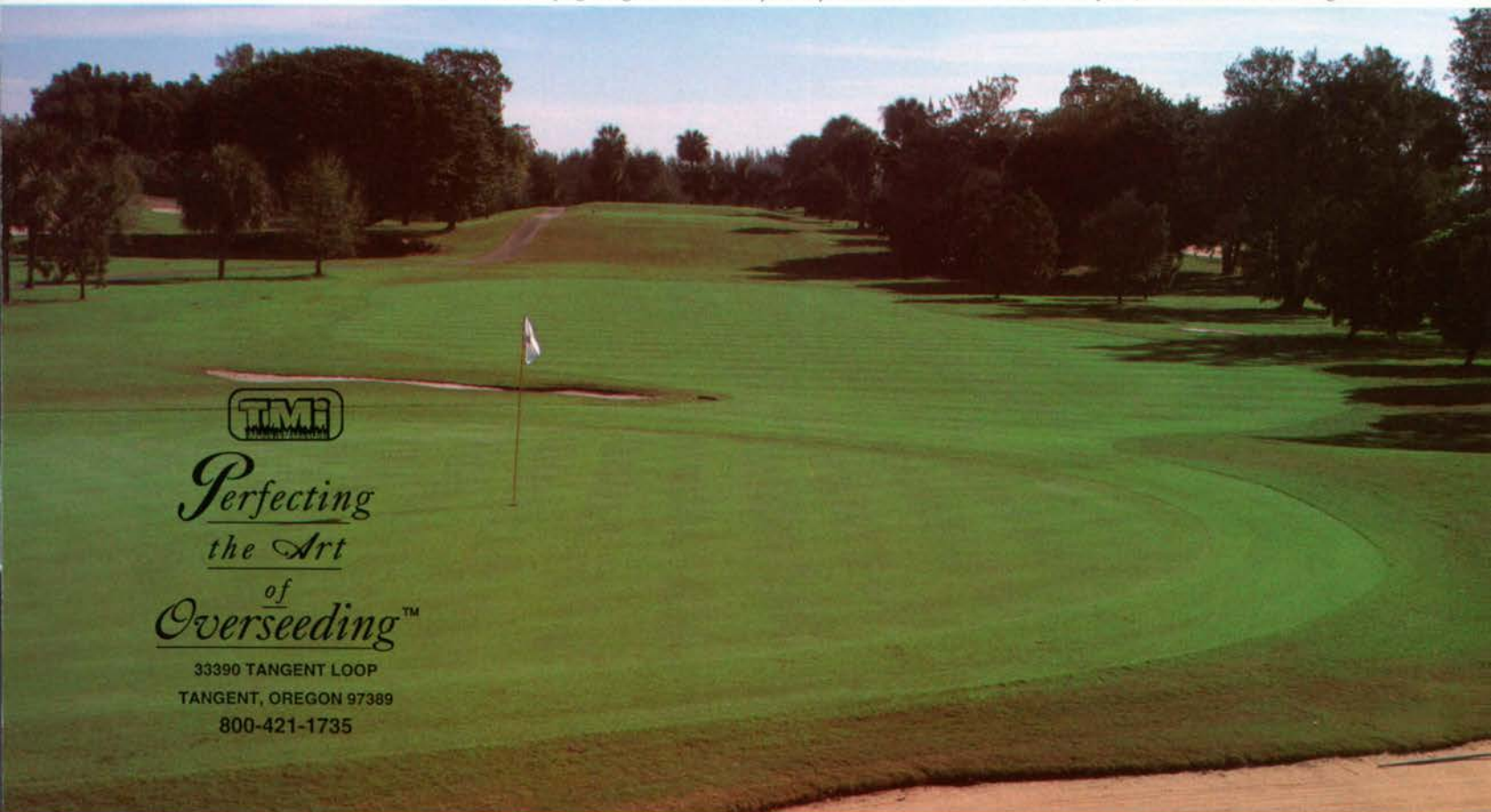
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At this year's annual meeting, we supported all the proposed bylaw changes. These all passed with overwhelming support from the GCSAA membership. This was a

difficult year for choosing which candidates to support. The people running for national office were exceptionally well qualified. We supported the following candidates: George Renault III, CGCS for Secretary/Treasurer; Ken Mangum, CGCS and R. Scott Woodhead, CGCS for Director. All three candidates were elected and Michael Wallace, CGCS was appointed to the Board.

I have been asked many times how the delegate process works. When someone originally joins the GCSAA, they fill out a form stating how they wish to vote. You can vote as an individual, by proxy, or chapter delegate. If you choose to vote as an individual, you must attend the GCSAA annual meeting at the Annual Conference & Show to cast your vote. If you choose to vote by chapter delegate, your vote is cast by the certified Voting Delegate representing the chapter you assigned your vote to. This remains the case until you change your voting status. We encourage all new members to assign their votes to the FGCSA and not their local chapter if they want to vote by delegate. This allows the FGCSA Voting delegate to cast one large ballot as opposed to casting ten smaller ones for each chapter.

One of the major reasons for the formation of the State Association (State Chapter) was to give the superintendents a strong voice in GCSAA matters. Because of our 12-month season, it is difficult for a Florida Superintendent to run for the GCSAA Board of Directors. By uniting our voting power, we can champion issues and candidates we feel will be in the best interest of all GCSAA members including Florida. The following is a brief synopsis of how the voting delegate process works.

At the FGCSA Summer Board Meeting or

soon after, the FGCSA Board of Directors approves the selection of the Voting Delegate and Alternate Voting Delegate, who will represent the state. This is usually a presidential appointment and is someone who has an interest in the process.

Every September, the GCSAA holds the annual Chapter Relations meeting at headquarters in Lawrence, Kansas. In the past, each chapter could send a representative, usually the External Vice President. In the future it will be only the Affiliated Chapters that will be able to send a representative. This meeting is the first opportunity for chapter delegates to see and meet the candidates nominated for the GCSAA Board and discuss possible bylaw proposals. After returning from Kansas, the local chapter delegates meet with their respective chapter members and boards to discuss any issues raised and to review the slate of candidates.

At the next FGCSA board meeting after

It's Your Vote

Kuehner's Corner



Dale Kuehner, CGCS
Vice President

Articles of Incorporation and By Law Changes	Yes	No
Ballot Issue #1 - Modification of articles of incorporation allowing chapter delegates and proxy voting for modification in annual dues for Class AA, A, B and C members	6632	9
Ballot Issue #2 - Beginning July 1, 1997, that each new Class A and B member residing in the U.S., except Alaska, must also be a member of an affiliated chapter.	6093	548
Ballot Issue #3 - Removing voting rights from Class C members and adding section to the bylaws delineating the rights of membership.	5437	1204
Ballot Issue #4 - That all chapters must have an Affiliation Agreement with GCSAA and establishing disciplinary action for violation of the agreement and Code of Ethics	6156	485
Ballot Issue #5 - Allowing the Stadnards/Bylaws Committee to reject proposed amendments and providing a means for an individual to submit a proposed amendment to membership vote.	6423	218
Ballot Issue #6 - Allowing chapter delegates and proxy holders to vote on modifications of annual dues, allowing the Board of Directors to remove or discipline a board member, allowing for the board to hold special meetings by phone, allowing a Director to waive the right to meeting notice, indemnifying Directors for simple negligence in accordance with state laws and providing for the dissolution of the Association and distribution of the assets in accordance with state and federal laws.	6609	12
A ballot for reduction of Class C dues to \$105, one-half of class A and B dues was also approved.	5571	279

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Kansas, the various external vice presidents report each chapters's position on the issues and the candidates. If there is no clear choice or preference of whom to vote for, a caucus is planned for the national conference after further conversations and meetings with the candidates. This past year we were fortunate to have GCSAA President Gary Grigg attend all FGCSA board meetings to keep us informed of the latest details and concerns relating to Chapter Affiliation.

Each candidate for office is invited to the FGCSA reception held during Conference & Show week prior to the Annual Meeting. This gives the voting delegate and any other interested members the opportunity to discuss any important issues with the candidates. After meeting with the candidates, the final caucus is held to decide how the Voting Delegate will cast the FGCSA votes. If any individual member or chapter disagrees with the FGCSA voting preferences, they can instruct the voting delegate to cast their vote(s) differently from the rest of the state. After all, it is your vote!

Vote Count for Officers and Directors

President	✓	Bruce Williams, CGCS	By Acclamation
Vice President	✓	Paul McGinnis, CGCS	By Acclamation
Secretary/ Treasurer		Dave Fearis, CGCS	2201
	✓	George Renault, CGCS	3742
		Paul Dermott, CGCS	711
	✓	Ken Mangum, CGCS	3507
Directors		Sam Snyder, CGCS	1502
		Robert Tillema, CGCS	825
	✓	Michael Wallace, CGCS	2310
	✓	Scott Woodhead, CGCS	3037

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Don't Play With People's Lives

Guest Editorial



Monica Elliott, PhD
Plant Pathologist
UF-IFAS

I have desperately tried to understand the golfer and golf course owner point of view in regards to golf course maintenance. However, to

borrow from Hollywood, I'm mad as hell and I'm not going to take it anymore. Now, you're probably thinking the person writing this is a golf course superintendent. No, I am an associate professor of turfgrass pathology with the University of Florida at the Fort Lauderdale Research and Education Center. I work very closely with the golf course superintendents trying to make sure golfers have the best possible conditions for playing

golf. What happens to them affects me also, personally and professionally.

So what has me all fired up? I can no longer tolerate the way superintendents are treated when the weather takes a turn for the worse. Superintendents all over southern Florida have either lost their jobs or are afraid they will in the next few weeks. Why? Because we have had abnormally high rainfall. Naples has had over 42 inches since August 1. Many communities in Palm Beach County are flooded today, thanks to 12 inches of rainfall in 24 hours. Superintendents in Illinois and Indiana have been under the same pressure. Why? Too much rain in the spring followed by a drought and excessive heat during the summer. And then the golfer or owner has the nerve to ask why the greens don't look perfect. How would you feel if someone kept beating you up all the time?

Growing plants is a risky business. Ask any farmer! Farmers in Illinois are harvesting poor crops of corn and soybeans this year due to the bad weather. My father has farmed in that area all his life. Even with all his experience, he could not change the crop yield because he could not alter the weather. He doesn't like it, but he accepts it. The citrus crop in Florida failed a number of years in the 1980s because of severe freezes. Again, the farmers live with that because they could not change the weather. Why do golfers and owners think that superintendents

can change the weather? Superintendents are great managers, but even *they* can't control Mother Nature. Why can't golfers understand this? The only explanation I have is they must all have green thumbs with beautiful gardens that are perfect. Right — and I still believe in the Tooth Fairy!

Golf course superintendents are professionals who know what to do if the golfer will allow them to use their knowledge and skills. Golfers complain if the greens are slow because the superintendent has raised the height of cut. The height of cut is increased because that is the very first thing that professionals like myself recommend. We have the proof to demonstrate that this is the most effective method for preventing serious long-term damage to the green. There is no such thing as perfect greens 365 days a year. It simply cannot be done, no matter how much money you have. You can't change the physiology of the plant.

Let me use southern Florida as an example. Southern Florida is in a subtropical climate. This means we have extensive rainfall in the summer and fall (corresponding with the hurricane season). During the rainy season, we not only have extensive periods of rainfall but also many days without adequate sunshine for bermudagrass growth. Bermudagrass is not a shade-loving plant. In fact, under low light intensity, bermudagrass actually changes the way it grows in that it puts most of its energy into its leaves and stolons and little into its root system. Plants don't survive very well without an extensive root system. So as the summer and fall progress, the root system becomes more and more shallow. The only thing keeping the plant alive are the green leaves. If those leaves are continually cut too short, then you further reduce the plant's ability to survive.

What is the appropriate height for bermudagrass? Let me answer this question from a historical perspective. The bermudagrass cultivars used today on putting greens are Tifgreen and Tifdwarf. They were developed 30 years ago. At the time they were selected, 1/4 inch was considered a very low height of cut. We have proven year after year here at the research center that Tifgreen cannot be

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maintained during summer and early fall at less than 1/4 inch, and we don't even have the everyday stress of golfers! Tifdwarf is tolerant of a 3/16-inch cut. However, if it is cut much below this height for any length of time in bad weather, it will look as bad as Tifgreen. Golf courses still use Tifdwarf because no other grass selection has proven to be any better.

Furthermore, golfers and owners have no basis for judgment of a good or bad superintendent if they keep changing the superintendent every couple of years. As with any professional pursuit, you learn from experience. I have never seen two golf courses react the same. For that matter, I have never seen two greens on a golf course react to weather and stresses exactly the same. It will take a minimum of a year for a new

superintendent to become familiar with a golf course as he needs to see how it responds to various weather patterns and maintenance practices. It is obvious to me that changing superintendents does not solve a golf course's problems. Each new superintendent at a course eventually calls me with the same problem that the prior superintendent had. There are a number of courses in southern Florida that I know better than the membership or owner. I am not complaining. I am happy to help, but it is a waste of resources (i.e., taxpayers' money) for me to go to the same course each year to view the same problem because the membership or owner will not allow the superintendent to implement my suggestions or the suggestions of other professionals.

Superintendents should be applauded for their management. Instead they are dismissed. How do they explain their dismissal to their children? How would you, the golfer, explain this to his or her family? "Well, kids, I like fast greens and your father or mother couldn't keep them fast enough for me when we had rain every day. Now, don't blame it on me. Blame Mother Nature." Get real, folks! Growing grass that is constantly under stress is an achievement that should be applauded. If I had my choice, a golfer would not be allowed to play until he or she spent a month in the superintendent's shoes listening to complaints from fellow golfers.

Editor's Note: Dr. Elliott originally sent this unsolicited letter to Golf Digest.



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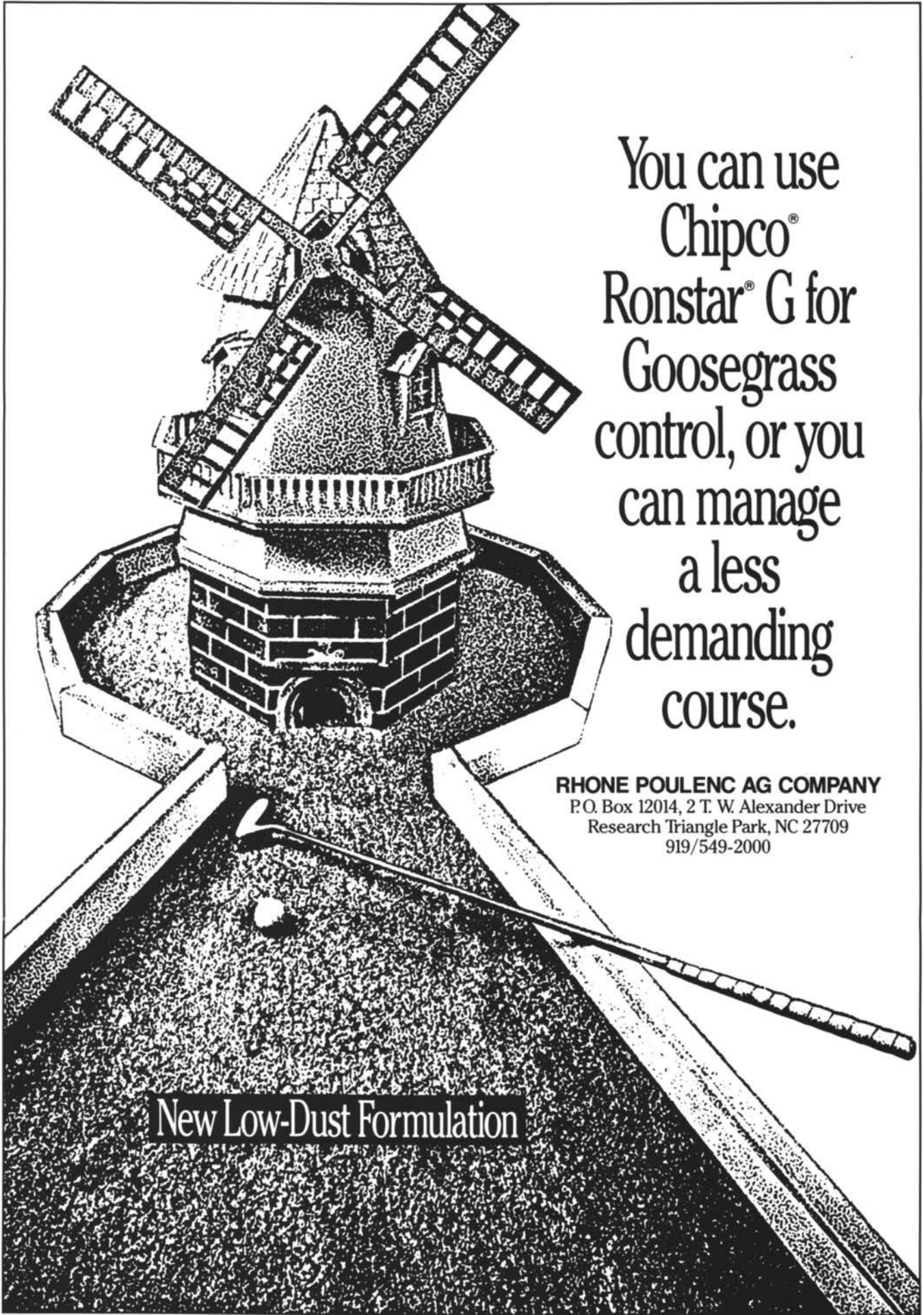
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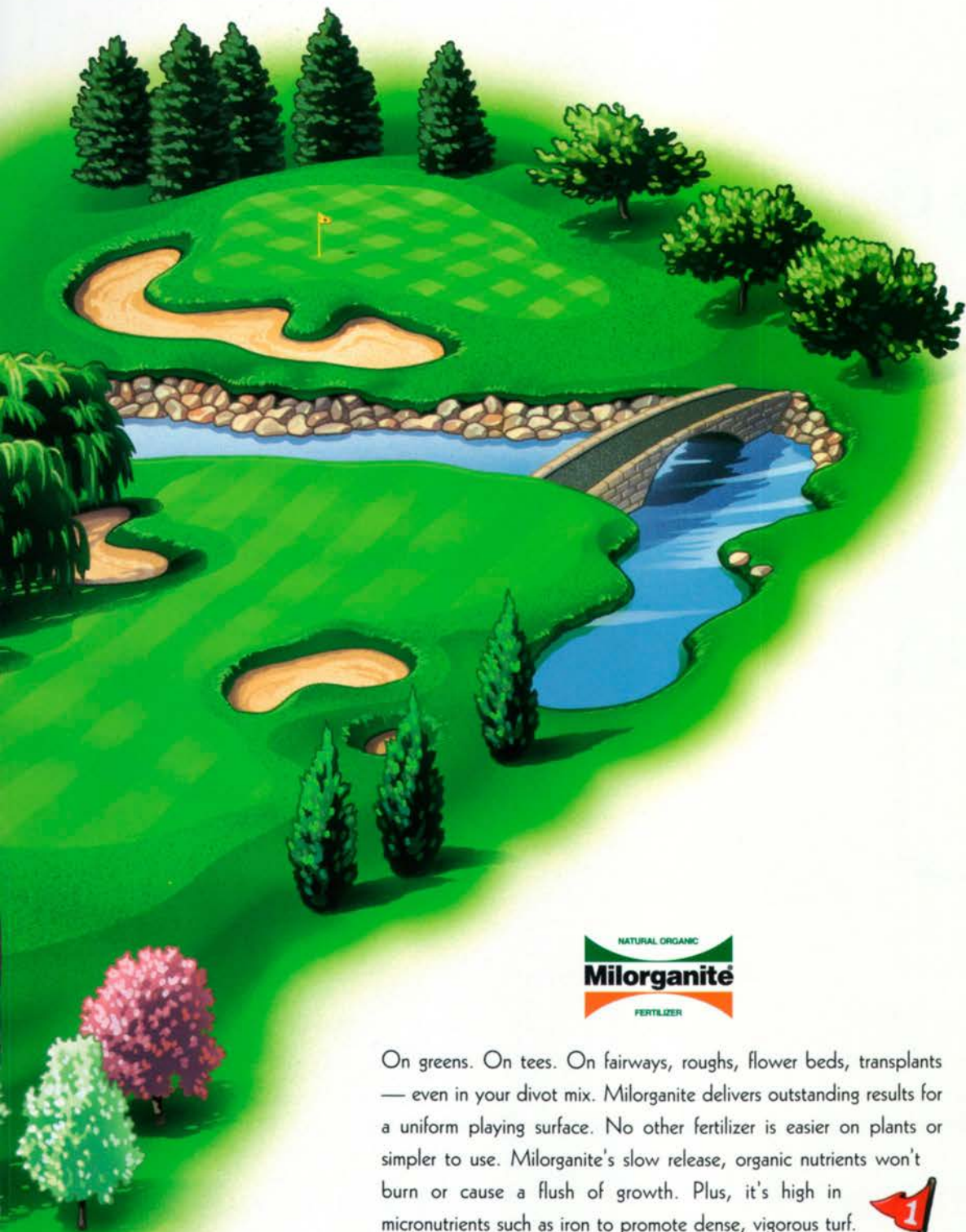
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Mike Barger: *Mr. Dade County*

BY KELLY CRAGIN

The South Florida Chapter nominated Mike Barger for the 1995 FGCSA President's Award for his outstanding service to the industry over the past 30 years. Mike's passion for the superintendent's profession brought him together with now longtime friend Tom Mascaro. Mike and Tom worked together to help establish the magazine we now know as the *Florida Green*. Tom says that most of the things he and Mike did are

President's Award Winners: 1995

Mike Barger
Paul Frank
Bill Wright

“unprintable,” but they had some great times promoting the profession. Mike became one of the first editors of the *Florida Green*, which helped advance his knowledge of the golf course industry.

Mike Barger began working for the Dade county Parks and Recreation Department in the 1960s. He worked on Greynolds Golf Course, which had just been completed. From there he moved to Crandon Park on Key Biscayne for two years, then was promoted to manager of Greynolds Park and Haulover Park. Mike acquired considerable exper-

tise in his beginnings with Dade County, which opened up the door for his future.

The Village of Miami Shores asked Mike to be their golf course superintendent, with an offer he couldn't refuse. After two years, he moved on to the City of Miami Beach, where he was offered the position to oversee its three courses, Bayshore GC, Normandy GC and the Beaches Par 3 GC.

Mike moved on in 1974 to become superintendent at the City of Coral Gables GC. He brought his experience to this municipality, where he developed short- and long-range plans for the Biltmore GC, the Granada GC and the parks in the city.

“When asked about his retirement hobbies, Mike said, “Golf, of course.”

With the retirement of the director of public service, Mike applied for the job which would see him to his own retirement in 1994. As the director of public service, his responsibilities included the



Mike Barger helped found The South Florida Green which grew into The Florida Green.

Waste Division, the Landscape Management Division, the Golf Course Division and the Administration Division of Public Service. He was responsible for over 100 employees with job that ranged from landscaping city streets, parks and playgrounds to maintaining the Biltmore and Granada courses.

After 20 years of service to the City of Coral Gables, Mike decided to retire. The first thing he did to ease the retirement blues was take a month's vacation in China. He presently does some consulting on the side, but Mike's main objective is just to enjoy himself. When asked about his retirement hobbies, Mike said, “Golf, of course.”

Author's note: Many thanks to Tom Mascaro for his contributions to this article.

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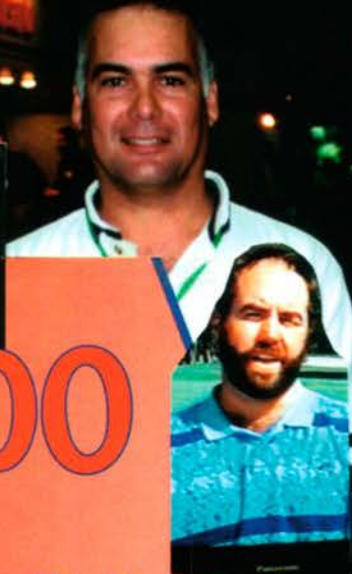
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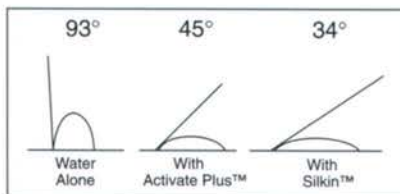
Using Adjuvants In Your Plant Protection Program

Here's how adjuvants can improve the performance and coverage of your plant protection product applications.

Using adjuvants in your turf management program can help you improve plant protection product performance. They can even make the difference between peak and poor performance. The starting point is to find the right adjuvant for the job. The most commonly used adjuvants for turf are: wetting agents; spreader/stickers; spreader/activators; sticking agents, and buffering and compatibility agents.

Wetting Agents

If you've been making thorough herbicide, fungicide and insecticide applications but still aren't getting the control you expect, your plant protection product may not be penetrating plant tissue surfaces. This reduces control and leaves spray residue susceptible to wash-off. The wetting agent Riverside® Silkin™ helps sprays penetrate plant tissue quicker for improved overall performance.



The wetting agent Riverside Silkin and spreader/activator Riverside Activate Plus™ reduce surface tension of spray so that it forms "flatter" droplets, improving coverage and absorption.

Spreader/Stickers

Good control in some areas and poor control in others could mean drift and wash-off are taking their toll on spray performance. During application, spray droplet size varies, reducing adhesion and causing spray to miss the target. To improve coverage and adhesion, use the spreader/sticker Riverside Complex™. It adjusts droplet size for better performance, even under adverse conditions. By reducing surface tension in the spray droplet and keeping the spray mixture suspended, Complex can dramatically improve the efficiency of herbicides, fungicides and insecticides.

Spreader/Activators

Droplet size varies during applications, making retention and distribution more difficult. Spreader/activators work in much the same way wetting agents

do. They deliver more uniform droplet distribution, quicker wetting and increased spray retention on leaf and stem surfaces when used with herbicides, fungicides and insecticides.

The spreader/activator Riverside Activate Plus improves performance and efficiency by moving the spray into plant tissue more quickly. By speeding up penetration, you get increased pest control.

Sticking Agents

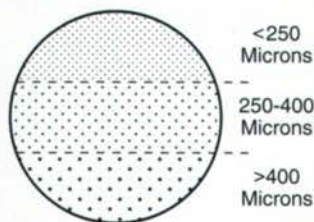
Contact herbicides, and non-systemic fungicides and insecticides can sometimes be washed away by rain, irrigation or even dew. Plant protection product sprays are also affected by drift. The sticking agent Riverside Plex® helps plant protection products penetrate the vegetation canopy and stick to plant tissue. That also helps control drift. Using



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Plex will help you make applications that will last longer, even in wet conditions.

Approximate Actual Size



Spray droplets under 250 microns are susceptible to drift and poor coverage. Using Riverside Plex or the spreader/sticker Riverside Complex to control droplet size effectively controls drift and

improves coverage. Both maintain droplet size near 400 microns, ideal for the best application.

Buffering and Compatibility Agents

If you're not getting the control you want but have followed label directions to the letter, it could be a pH problem in your tank mix. The buffering agent Riverside Combine® will help you correct the pH level for maximum performance from your spray mixture. If you're unsure of your pH level, use a pH test kit or, if you don't have one, contact your Terra representative.

Combine® pH use chart.

		Starting pH			
		9	8	7	6
Desired pH	8	2	0	0	0
	7	4	2	0	0
	6	16	12	8	0
	5	20	16	12	8
		Oz/100 gal. water			

A chart like this one makes it easy to adjust pH level for optimum results. For example, if your desired pH is 7 and your starting pH is 9, you would need to mix 4 ounces of Combine per 100 gallons of water to get the proper pH.

In addition to buffering, Combine also works as a compatibility agent. The compatibility agent Combine should be used when: more than one plant protection product is included in a tank mix; when tank mixing different formulations like wettable powders and liquids; or when applying micronutrients or plant protection products with fertilizer. Also, Combine improves spray mix stability and dispersion.

To see if a compatibility agent will help your tank mix, try the jar test. Fill two quart jars each with a pint of water or carrier. Use the same source and temperature as you would in your actual tank mix. Mark one jar "with" and one "without." Add 1/4 teaspoon of Riverside Combine to the jar marked "with" and shake it gently for 5-10 seconds. Add the plant protection product(s) to both jars in the proper volume and sequence according to the label directions. Shake gently before adding each new product. Wait 5-10 minutes. Check both jars. If no gels, sludge, flakes or other irregularities are present, the mix is compatible.

If the jar marked "with" is compatible and the jar marked "without" isn't, a compatibility agent should be added to your tank mix. If the jar marked "with" isn't compatible, the tank mix shouldn't be used.

Wait 30 minutes. If the mixture separates but readily mixes again, the tank mix can be used with proper agitation.

Adjuvants Pay Off

Overall, adjuvants can help you protect the investment you make in plant protection products by making them more effective. Whether you're using wetting agents, spreader/stickers, spreader/activators, sticking agents, buffering and compatibility agents or all five, they can help you overcome some of the common problems faced by turf professionals.

For more technical information on adjuvants, contact your nearest Terra Professional Products representative.



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Florida wins GCSAA golf title

BY JOE ONDO, CGCS

A full moon and 24-degree temperatures welcomed 720 players on Monday, Feb. 5, 1996 to sunny Orlando for the 67th Annual GCSAA Golf Championship. A two-hour delay at most courses allowed temperatures to reach 34 degrees before the first foursome was allowed to tee off.

After the first round was over, the Florida #1 team led by Buck Buckner's 73, Jim Osburne's 74 and Mark Hopkins' 81 at Disney's Eagle Pines course combined with Kevin Downing's 75 at Hunter's Creek to lead the field by seven shots.

On day two, windy, cloudy conditions and a temperature of 38 degrees for most of the morning wreaked havoc for most of the players and kept scores higher than normal. By the end of the grueling day, The Florida #1 team held on for a two-shot victory and ended a 13-year victory drought and brought the Scottish Team trophy back home for 1996. Congratulations to Buck, Mark, Jim and Kevin for a job well done. Congratulations also to Jim Dusch from Atlanta National Golf Club for winning the Championship Flight and the USGA Trophy with a 149 total.

Besides the Scottish Team trophy, Florida superintendents also did very well individually: Buck Buckner was third overall and the other team members also won prizes in their flights. Hal Richburg, Kevin Rotti and Tom Trammell also took home prizes in their flights. Kevin Downing and Fred Klauk won the Best Ball tournament on Sunday before the Championship.

Host Superintendents for the six courses used in the tournament were Larry Kamphaus, Manager of Golf Course Maintenance, Walt Disney World; Pat Hennessey, Disney's Eagle Pines course; Alan Steichen, Falcon's Fire; Joel Jackson, CGCS, Disney's Magnolia course; Craig Shelton, Hunter's Creek; Doug Rouse, Disney's Lake Buena Vista course and Tom Trammel, CGCS, Metro West. All received plaques from the GCSAA for jobs well done.

After the tournament, temperatures returned to normal and players put away their long underwear, ski caps, mittens, sweaters and other layers of clothing to head for the conference and show. We will have to wait and see what Mother Nature has in store for us next year in Las Vegas. 🏌️

GCSAA has developed a new piece of "clip art" that superintendents can use to encourage golfers to repair ball marks, replace divots and rake bunkers. "It's every player's responsibility" is a black-and-white, camera ready ad slick that any GCSAA member can reproduce in club/course newsletters, local golf publications or even on scorecards. To obtain a copy, contact the GCSAA Public Affairs Department at 913/832-4490.

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- Repair ball marks
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- Rake bunkers



A message from your golf course superintendent and GCSAA



The LCCC Fund Raiser Tournament Committee weathers another successful event.

LCCC benefit event raises \$9,000

The Fourth Annual Endowment Fund Raising Golf Tournament was held Jan. 12, 1996, at the Riverwood Country Club. Though the day started off with a torrential rainfall, the tournament did manage to begin after about a 45-minute delay. Even the rain couldn't dampen the spirits of the attendees as only a few didn't show. With clearing skies and increasing wind, the beautiful Riverwood Golf Club fulfilled everybody's expectations and beyond.

Though the pro shop did notice a drastic increase in golf ball sales that day, some people did manage to turn in some impressive scores. Out of these scores some even passed the lie detector test administered by the tournament committee. All joking aside, this event raised in excess of \$9,000, thanks to the support of the sponsors and players. Though the winners received some great raffle prizes, valued at \$10,000, the real winners were Lake City Community

College Golf Operations and the entire turf industry.

A Flight tournament winners were Tom Hilferty and Andy Burmester, and for the B Flight, Greg Pheneger and Ralph Daire. The big raffle winners were Rick Tatum, with a cruise to Cozumel, Mexico, and Jack Stahl, who won \$500 in cash.

The tournament committee consisted of Co-Chairmen David Fry and Glenn Zakany, Host Superintendent and Diamond Sponsor Coordinator Scott Hamm, Gold Sponsor and Raffle Prizes Coordinator John Johnson, Dick Bessire, Jason Brod, Mike Griffith, Odell Spainhour and Brad Walters.

The tournament committee would like to thank all who make this event possible and hope to continue the tradition of this event. Weather permitting, next year's tournament will also be held the second week in January. 🏌️

THANK YOU!

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9th Green Marsh Landing C.C. Photo by Daniel Zelazek



*And a marsh
runs through it...*

BY JOEL D. JACKSON, CGCS

Florida's Intracoastal Waterway is a network of bays, rivers, creeks and marshes all connected behind the barrier islands of the coastline. In Northeast Florida, the Pablo Creek portion of this

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waterway runs south from the St. Johns River to the Duval - St. Johns County line. Just below the St. Johns County line, we find Cabbage Creek draining the land west of Ponte Vedra Beach. Along the banks of the winding tributaries of Cabbage Creek, we find the Marsh Landing Country Club.

Many of the golfholes at Marsh Landing are nestled between and crossed by Cabbage Creek's serpentine swards of marsh grasses turned golden brown by the several hard freezes of the winter of '96.

Narrow, twisting, brackish creeks, rising and falling with the tides, meander through the marsh grass. Oyster beds protrude at low tide and wakes and swirls of cruising fish can be seen on the rising tide. Other holes wind through oak, pine and sabal palm hammocks common in the landscape just west of the great coastal beach dunes.

In contrast to the marsh grasses and the tan dormant bermudagrass roughs, the overseeded greens, tees and fairways rest like emeralds on beige velvet. The bright green islands of turf catch your eye in the winterized landscape. And like the precise facets on a gemstone, the edges of the overseeded areas are crisp and clean, reflecting the work of a master craftsman.

Ed Seay designed Marsh Landing in 1986 and for the past seven years superintendent Steve La France has been tending to the details of managing and grooming this gem of a golf course.

It is late January and Steve is giving me a tour of Marsh Landing. The winter has been just as hard on North Florida as it has on Central Florida. Marsh Landing does receive some moderating effect from being so close to the Atlantic Ocean. Their temperatures run a few degrees higher during the cold snaps than the courses farther inland.

"The biggest problem this winter has been the duration of the cold spells this year," says Steve. "The cold is lasting longer and driving the grass into deeper dormancy."

The contrasts between the overseeded and non-overseeded areas are more pronounced this year. I like



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The 11th hole shows its mettle with a formidable bunker on the left side. Photo by Daniel Zelazek.

the look. I call it the “Arizona Look” from the way the courses look on TV at the Phoenix and Tucson Opens.

Steve and his staff have done an outstanding job of seeding. I didn’t see any ragged edges or volunteer seedlings anywhere.

“By judicious contour mowing each season, we have reduced our total fairway acreage. We have kept our seeding rate on the fairways at 480 pounds per acre. This has helped increase our overseed density without raising seed costs. We use a Vicon spreader and apply the seed in two directions,” Steve explained.

“Our pre-emergent program seems to be getting more complex each year. Because we use bentgrass in our greens mix, I don’t use the Kerb-charcoal program for *Poa annua* control. Instead we use the Rubigan program of splitting three applications prior to seeding.

“Around the greens perimeters we use

a drop spreader to apply Ronstar XL and then we spray Barricade the rest of the way. I have tried Kerb around the tee slopes, but two rainy years in a row right after seeding have led me to try Balan around tee, approach and fairway perimeters.

“This year we were very lucky that all the rain we were having quit so we could get the seed out before it started getting too cool for germination.”

“The putting surfaces are seeded with

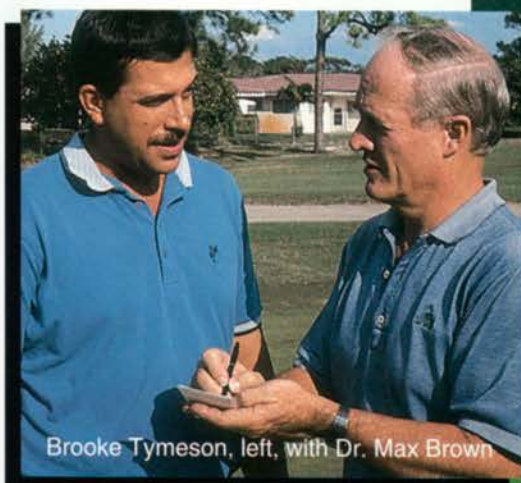
3 pounds of Penneagle bentgrass and 9 pounds of Laser Poa trivialis. With 30,000 to 36,000 rounds of golf a year, the owners and members want the greens on the fast side. We have only made one granular application of fertilizer to the greens since seeding. Instead we apply 1/10 of a pound of nitrogen weekly using Nutriculture’s 28-8-18 Bentgrass Special soluble fertilizer. Right now we’re mowing the greens at .130 inches. In the warm season, we apply 1/2 pound of nitrogen



One of several freshwater lakes on the back nine highlights the 17th hole. Photo by Daniel Zelazek.

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Brooke Tymeson, left, with Dr. Max Brown

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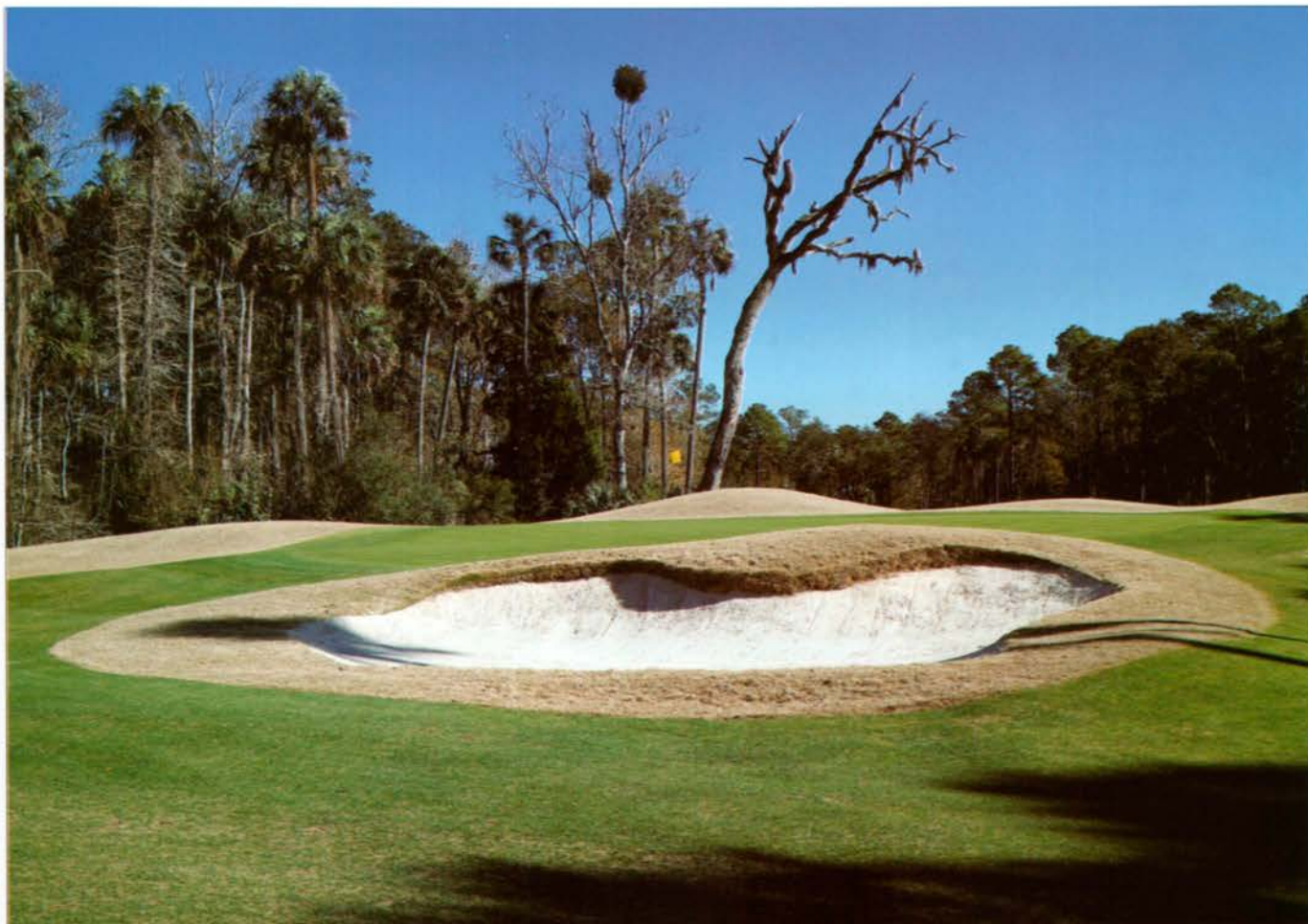


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The 6th green awaits at the end of a 500 yard par 5 hole. Photo by Daniel Zelazek.

as a granular fertilizer every three weeks and topdress the greens lightly with the Vicon.”

As we continued our tour, Steve pointed out some of the natural high-lights and challenges of the course.

“The front nine is built mostly in a tidal marsh with the brackish creeks providing spectacular tee and approach shots. We have seen snook and red drum in those waters. The back nine has more fresh water lakes and they have a healthy largemouth bass population. We have a nesting pair of ospreys that comes back every year, and as you can see we have mallards, egrets, herons, ibis and wood storks all over the place.”

“Irrigation management is my biggest challenge because of the heavy nature of the soil profile. We grow in our green’s overseeding by hand watering exclusively because many slopes can’t take the automatic irrigation.

“On holes #4 and #5, we have some shading problems in the spring and fall and we selectively clear vegetation to open them up for more air circulation and sunlight.

“We also have ongoing drainage projects to relieve any problem areas that develop during heavy rainy periods like the last two summers. Last year we renovated 20 bunkers. This year we have dedicated the first six months to do 40 more. We should finish all the greens bunkers by the end of this month.”

Steve also showed me some isolated areas along the outer roughs that defied all attempts to grow good turf. These were in deep shade or in low runoff areas that were hard to drain.

“We converted these areas into ‘waste bunkers’ by cleaning out the mucky soil and bringing in some crushed coquina. Now all we have to do is touch it up from time to time when we’re raking bunkers.

“Currently, as the Marsh Landing community matures, the course is being impacted a little by some of the new construction. Typical stuff like an irrigation line getting cut.

“On a larger scale we are realigning several cart paths to set up the holes better as homes are added nearby. That is one of the things I like about the ownership. They are willing make the investment to do things right. Our department used to have landscape responsibilities around the development.

“The owners wanted the course to rise to the next level of excellence, so we added a couple of people to the staff and we work only on the course. Now we can devote more attention to details like more frequent cart path and bunker edging.”

That attention to detail at has not gone unnoticed in the golf world. Besides being a premiere residential county club facility, Marsh Landing annually hosts



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the PGA Commissioner's Cup tournament held during The Players Championship week.

Marsh Landing has also been selected to host regional U. S. Open and U. S. Amateur qualifying tournaments. That is quite a compliment to the efforts of Steve and his staff since Marsh Landing is but one of over a half dozen courses competing for favor in the Ponte Vedra Beach area.

Steve's ability to manage a high profile golf facility is a result of a familiar journey taken by many in similar positions, but also unique like the individual dreams, visions and talents we each bring with us.

Steve grew up working at the St. Joseph's Bay C. C. in Port St. Joe, Florida all through junior and senior high school. This is where golf professional Code House taught Steve to play golf and love the game.

He worked all the jobs associated with

the pro shop and eventually he worked on the course maintenance staff. When Steve was competing on the golf team at Lake City Community College, he recognized the limitations of his skills. House, his mentor, encouraged him to enroll in the Golf Operations Program at LCCC, and Steve has never looked back.

Steve arrived at Marsh Landing by way of South Carolina, Alabama, and Palm Beach County, Florida. Each stop was a lesson in what it takes to be a successful superintendent.

At Palmetto Dunes on Hilton Head Island, Steve, the OJT student, was distinctly impressed by the totally professional demeanor and people skills of Billy Fuller. Billy, you may remember, went on to serve as superintendent at Augusta National in the mid 1980s.

In Alabama, as a young assistant, Steve came under the tutelage of Ken Dillard, CGCS. Active in state and national asso-

ciations, Ken gave Steve insights into being responsible to a profession as well as a position.

At the Boca West complex, Steve got to polish his skills in a highly competitive atmosphere under the guidance of the talented and versatile Billy Wright, CGCS. (1995 FGCSA President's Award winner)

Natives of North Florida and Georgia, Steve and wife Amy are happy to be in the Jacksonville area to be closer to their roots and to begin their family. If you draw a line on a state map due west from Marsh Landing and Ponte Vedra Beach, you will come to Port St. Joe. The little coincidences in life can be very interesting.

Now sporting an 8 handicap, Steve still enjoys playing golf, especially at other courses to get new ideas, but he finds his playing time diminishing and limited to monthly North Florida GCSA chapter



The approach shot on the 8th hole must carry the marsh fronting the green. Photo by Daniel Zelazek.

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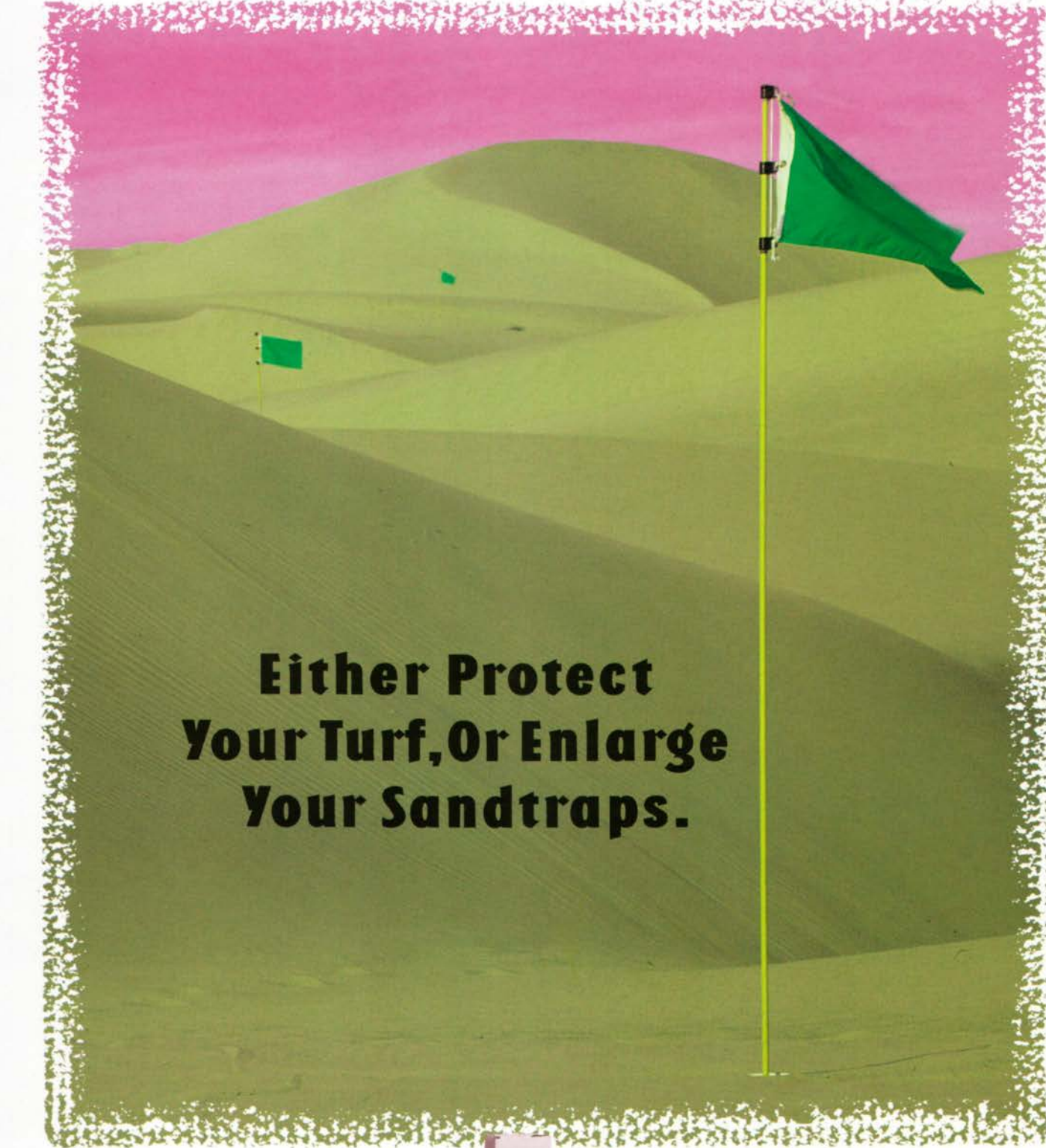
Perhaps Steve finds himself learning a new lesson as he lists spending time with the kids as one of his primary interests on this part of his journey. Setting priorities and finding that balance between work and personal life seems like a goal that Steve is mastering at home and at Marsh Landing.



Ibis, egrets, mallards and a wood stork share the marsh pond behind #3 tee. Photos by Daniel Zelazek and David Bailey.



Marsh Landing's 1996 bunker project is under way on #17 green. Photo by Joel Jackson.



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Superintendent Steve La France (left) and his assistant, Daron Mueller. Photo by Joel Jackson

Steve La France

Originally from: DeFuniak Springs, FL

Family: Wife, Amy. Two sons, Logan(5 yrs) and Marshall(18 mos.)

Education: Golf Course Operations Degree, Lake City Community College

Employment: 1989-Present, Superintendent Marsh Landing CC, Ponte Vedra Beach; 1986-89, Superintendent Boca West, Inc. Boca Raton; 1981-86 Assistant then Superintendent Olympic Spa G & CC, Dothan, AL; 1979-80 Student OJT at Palmetto Dunes Resort, Hilton Head, SC.

How did you get into the business: I grew up working on a golf course in Port St. Joe, FL from the age of 14. I worked all jobs from life guard to cart attendant to pro shop and eventually golf course maintenance all through junior and senior high school. I received a Golf Scholarship to LCCC after high school.

People who have influenced your career: Code House was the golf professional at Port St. Joe. He taught me to play golf and encouraged me to attend the Golf Operations program at Lake City. During my first OJT at Palmetto Dunes, I worked for Billy Fuller. After being exposed to Billy's people skills and professional manner, I felt this was what I wanted to do. He probably had the biggest single impact on my early career. From Ken Dillard in Alabama, I learned the value of networking and being involved in our associations. Under Billy Wright's watchful and trusting eye at Boca West, I was given the opportunity to run my own course in the very competitive Palm Beach area. It was a tremendous learning experience.

Personal philosophy of work and life: Keep your priorities in order. Take things one day at a time. Be hands on. My wife is from Georgia and I'm from North Florida so we have really enjoyed moving to this part of the state. The ownership at Marsh Landing is very willing to invest in the quality of the total development, and that makes it fun to work here.

Advice to prospective superintendents: Be patient and work hard. Hard work always pays off! Develop your people skills. That is just as important as any technical knowledge of turf management.

Professional affiliations: Current board member North Florida GCSA, FTGA, GCSAA. Past board member, Alabama Turfgrass Association.

Hobbies and interests: Golf, fishing and spending time with the kids.

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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.

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The Marsh Landing Golf Maintenance Team. Photo by Joel Jackson.

Marsh Landing Country Club

Location: Ponte Vedra Beach, Florida

Ownership: M.L. Partnership

Playing policy: Private.

Management Team: Club Manager, Sally Larkin Hall; Director of Golf, Marc "Dewey" Arnette, Head Golf Professional, Mike Barlow

Designed by: Ed Seay. 18 holes.
Length = 6,841 yards.

Course/Slope Ratings: Championship - 72.7/131; Gentlemen - 70.8/128; Seniors - 68.6/123; Ladies - 68.7/121

Constructed by: M. L. Partnership.
Opened: May 1986

Recent projects: Rerouting paths on some holes. Construction of 3 new lakes for drainage and retention. Renovating and installing bunker drains.

Acres: Total turf = 101 acres.
Waterways = 50 acres.

Greens: 3 acres. Average size = 6,000 square feet. Turf type = Tifdwarf. HOC = .125(1/8") to .156(5/32"). Overseeding = 3 pounds

Penneagle bent and 9 pounds Laser Poa trivialis per 1,000 square feet.. Green speed goal = 8.5 - 9.0. Special events 10.0+.

Tees: 3 acres. Turf type: Tifway 419. HOC = 7/16" - 9/16" . Overseeding = Perennial ryegrass blend at 20 pounds per square feet.

Fairways: 25 acres. Turf Type = Tifway 419. HOC = 7/16" - 9/16". Overseeding = Perennial ryegrass blend at 480 pounds per acre.

Roughs: 70 acres. Turf Type = Tifway 419. HOC = 1.25" - 1.50". No overseeding.

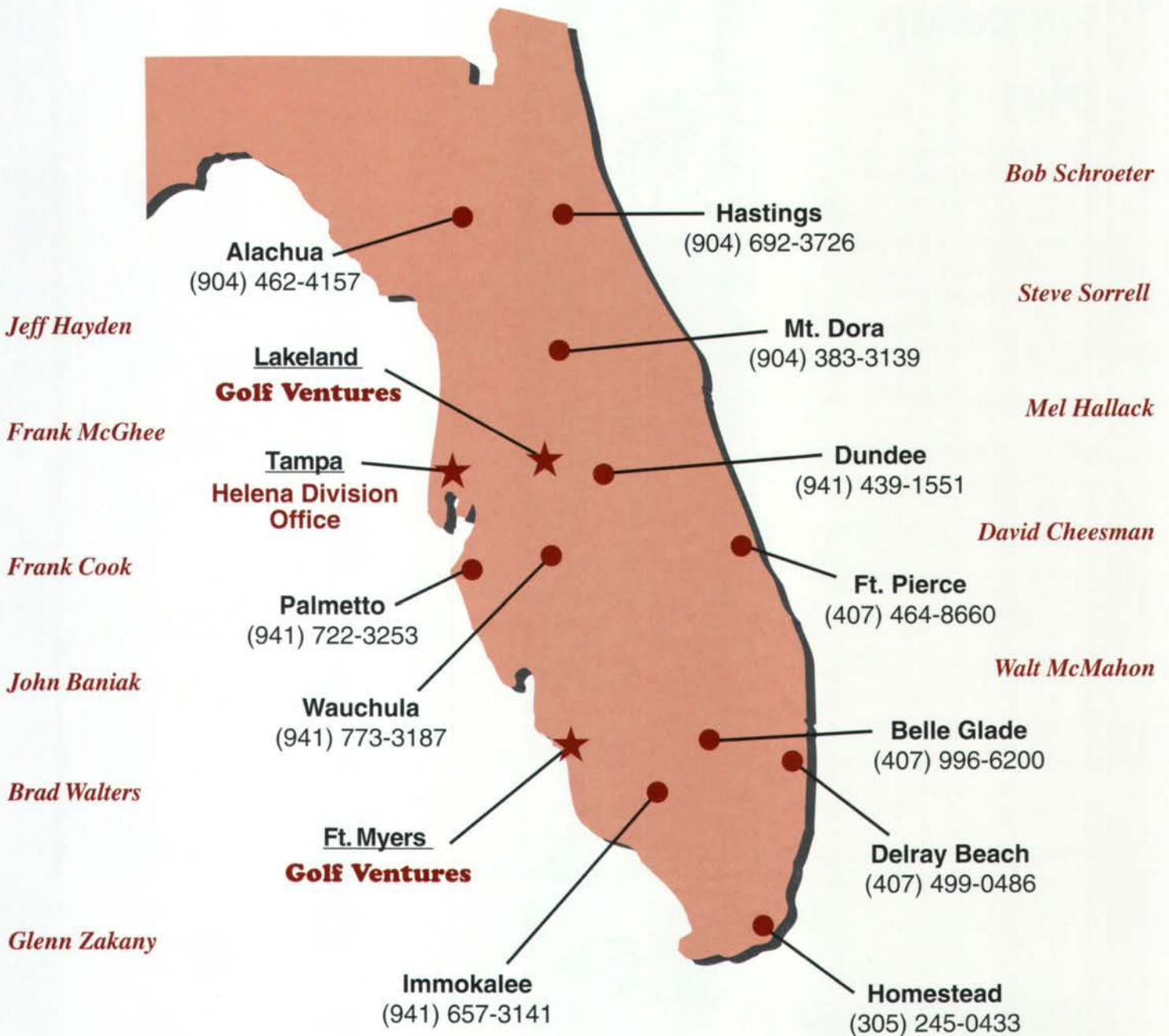
Irrigation: Source = Effluent. Equipment = Carol Childers pump station. Toro VTII Central Controls. 730 Toro 670 heads covering 100 acres.

Staff: Total of 20 including superintendent. Assistant Superintendent, Daron Murrell. Equipment Techs, David Lindsey and Chris Shackelford. Pest Control Tech, Tony Sanders. Irrigation Tech, Bill Evans.

Unusual conditions: Tidal marsh environment and heavy soil profile makes proper irrigation management critical.

Mowing equipment: Greens = Jacobsen walk mowers. Tees & collars = Lesco triplexes. Fairways = Jacobsen LF-100's. Roughs = Two Jacobsen pull behind, 5-gang units.

Cultural and Fertility programs:
Aerification: Greens = 2 times per year. Core aerified in spring and deep drilled in the fall. Tees & Fairways = Core aerified once per year. **Fertility:** Greens = 12 - 16 pounds of N per year. Combination of weekly liquid spoon feeding a few granular applications. Tees = 6 - 8 pounds of N per year. Fairways & Roughs = 4 - 7 pounds on N per year. Other: The greens are lightly verticut and topdressed every three 3 weeks in summer and as needed the rest of the year.



Tip to speed up play

Discovering new ideas is one of the fringe benefits of traveling all over the state to write cover stories for *The Florida Green*. Here's one that caught my eye on this assignment.

Pace of play at golf courses is one of the most difficult problems to manage.

Marsh Landing has installed the usual devices:

- vertical 150 yard markers in the roughs.
- yardage labels on the irrigation heads.
- engraved in ground granite markers at 200, 150 and 100 yards.
- markers on the cart paths at 200, 150 and 100 yards.

With all those commonly used distance aids, how many times have you still seen golfers wasting time wandering about looking for one of those painstakingly laser calibrated and labeled irrigation heads? Marsh Landing takes a very proactive step and makes those heads very easy to spot by painting a bright orange circle around the heads marked with yardages. It works for them. Maybe it will work for you!

Joel D. Jackson, CGCS



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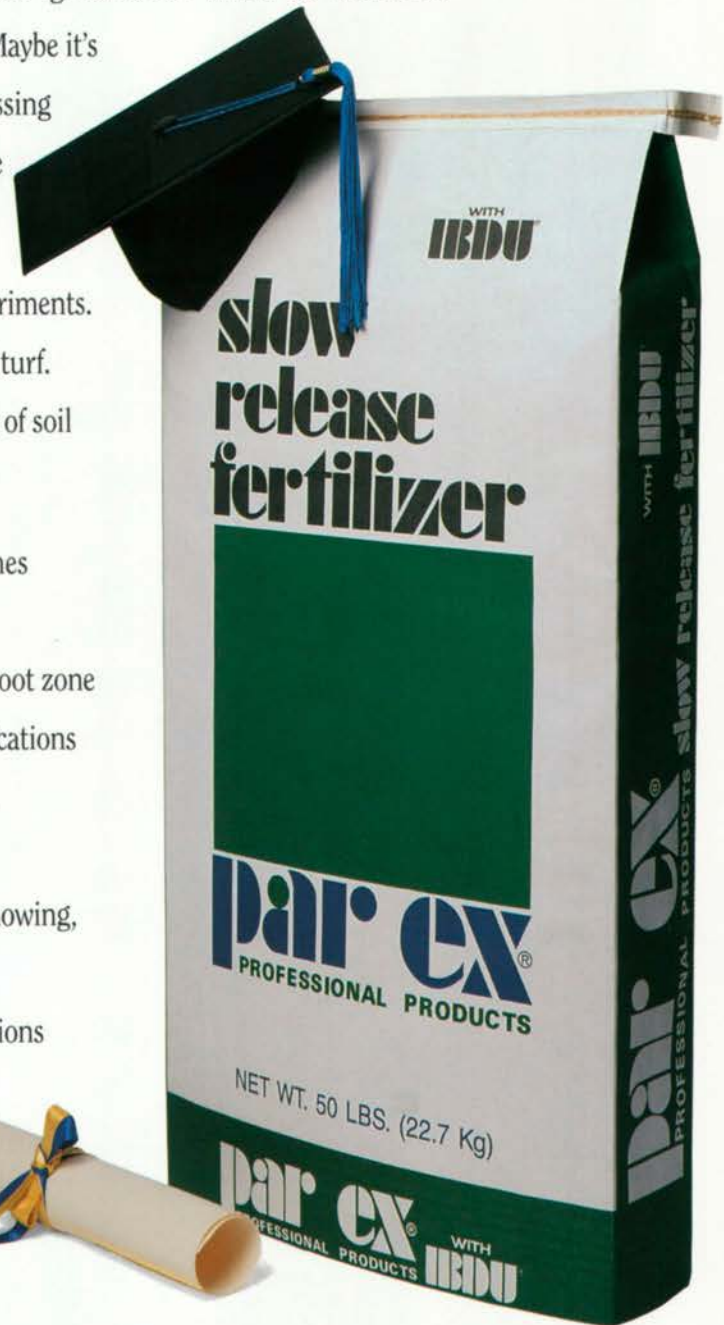
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The Toro Greensmaster® 3200. Redefining the Cutting Edge.



THE GREEN. That turf area most subjected to fame or blame. Where play is most deliberate and accuracy most demanded. The Greensmaster 3200 brings forth new technologies to exceed the high demands of today's greens care for your golfers' ultimate satisfaction.

The 3200 traction unit reveals the latest advancements for operational excellence and unites with an all new, extremely responsive cutting unit system that gives new meaning to a precision cut.

Comfort Prevails

The Greensmaster 3200 enhances operator performance with natural positioning. Contoured, cushioned, high-back seating firmly supports the operator. Seat and steering arm adjustments are easily made without tools. The horizontal movement of the arm naturally follows the fore and aft positioning of the seat in relationship to the steering wheel. This new design leaves the seat in the correct position to accommodate different sized operators. Precision power steering and hydrostatic drive make for easy going. With excellent speed control and dynamic braking.



Safety Conscious

People come first. That's why the Greensmaster 3200 will operate only when it senses the safe combination. A seat switch and two proximity switches in the control panel "sense" the operator's presence for safer operations. The 3200 is a remarkably quiet mower and is also the first greens mower offering an optional roll-over protective structure for added protection.

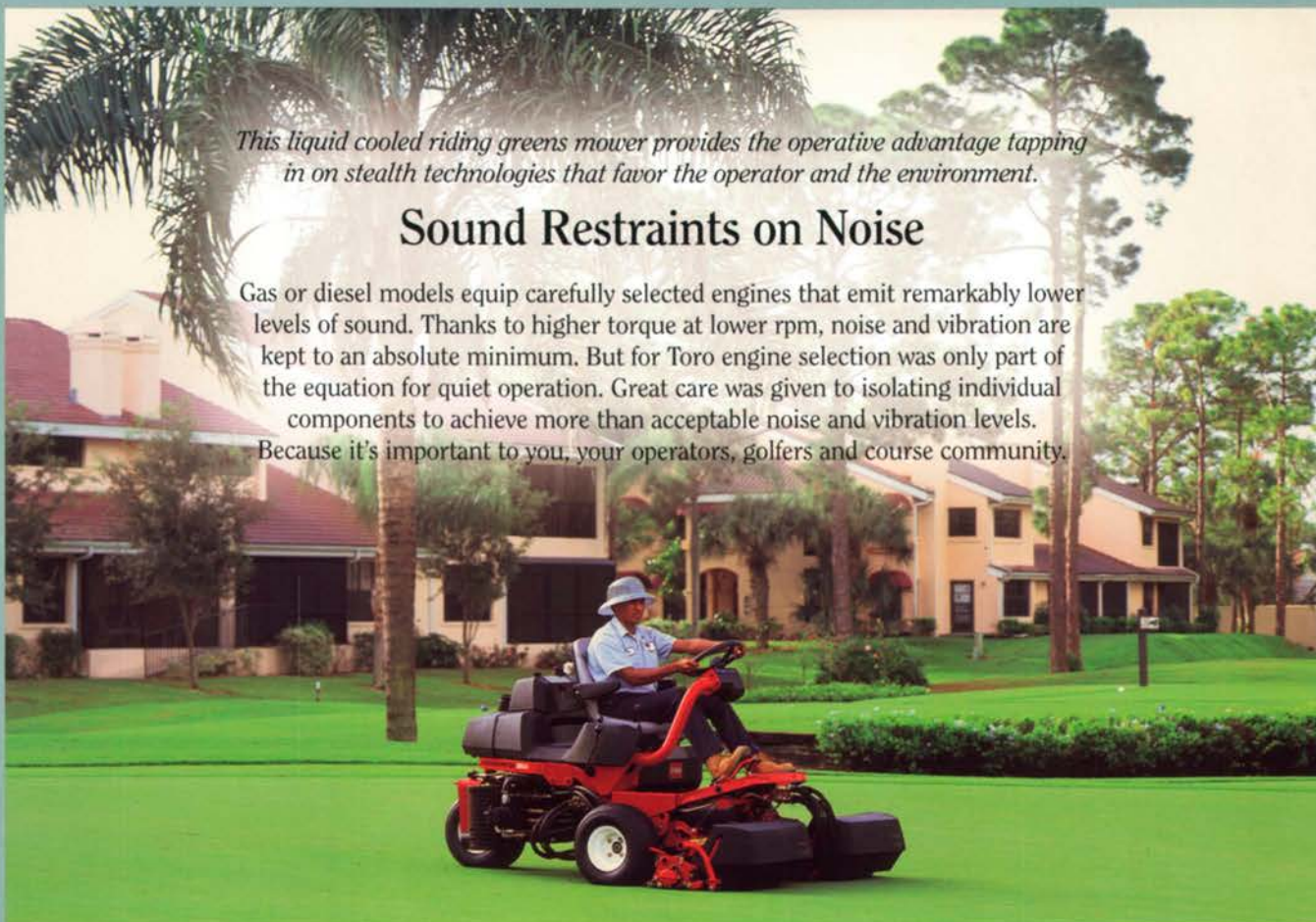


Greensmaster 3200: It's To Everyone's Advantage

This liquid cooled riding greens mower provides the operative advantage tapping in on stealth technologies that favor the operator and the environment.

Sound Restraints on Noise

Gas or diesel models equip carefully selected engines that emit remarkably lower levels of sound. Thanks to higher torque at lower rpm, noise and vibration are kept to an absolute minimum. But for Toro engine selection was only part of the equation for quiet operation. Great care was given to isolating individual components to achieve more than acceptable noise and vibration levels. Because it's important to you, your operators, golfers and course community,



Easy Going

The Greensmaster 3200 will readily make even your rookies first-rate operators. Built-in simplicity and comfort enhance the operator's fluent control necessary for greens mowing accuracy. The traditional Mow/Lift pedals have been replaced with a *Joystick Control* for activating all cutting unit functions.

A *Function Control Lever* combines multiple functions into a single lever: *Neutral, Mow* and *Transport*. This provides an added advantage on the gas model in that engine speed is automatically preset for each selection. You get an even better quality of cut with a fixed engine speed and, when in neutral, the engine drops automatically to a quiet idle.

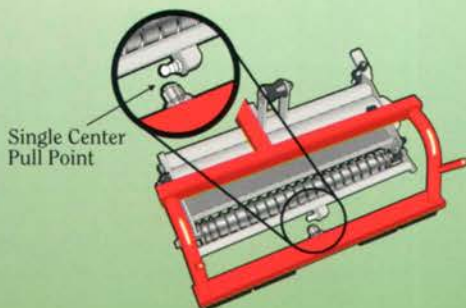
There's also a *High/Low Transport Switch* on the gas unit that allows transport at lower engine rpms yielding a "stealth" transport mode. The lower speed and noise can be an advantage driving through noise-sensitive areas.



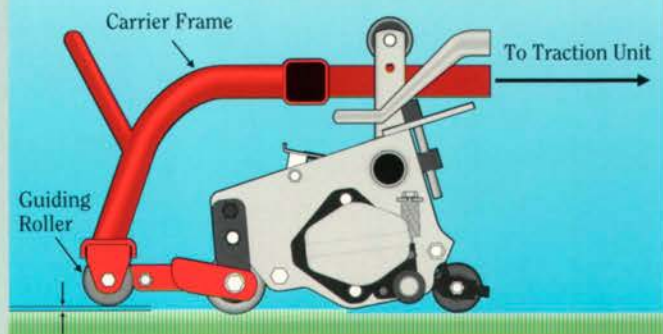
Advanced Mowing Technology

The Greensmaster 3200's new cutting unit system parades the way in mowing technology.

Single Center Cutting Unit Pull Point



Carrier Frame / Cutting Unit-Side



The Ideal Connection

Toro has innovatively devised a simple but heavy duty single ball type disconnect that attaches each floating cutting unit to its carrier frame. This *single center pull point* allows the cutting units to roll freely to follow all types of terrain. It also adds an additional

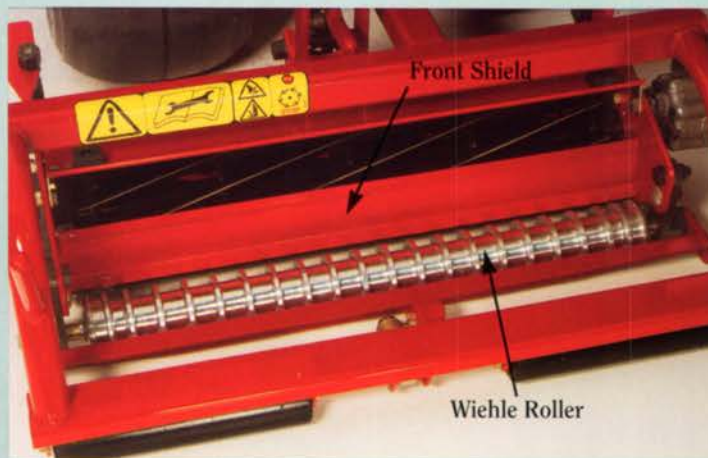
degree of side to side steering motion for precise ground contour following, even on the perimeter cut.

Weightless Suspension

The 3200 suspends and transfers the entire weight of the basket and carrier frame to the traction unit.

The weight increase of grass clippings does not influence cutting unit penetration resulting in a most uniform, precise height of cut for a truer putting surface.

A new "guiding roller" that rides above the grass replaces the front carrier frame roller that supports the weight of the basket and carrier frame on other Toro Greensmaster models.



New Rollers, New Shield

Redesigned Wihle and full front rollers are now larger in diameter, 2-½ inches. The larger size provides a smoother, less resistant roll. One of two new styled Wihle rollers comes standard; both have wider spaced ribs promoting grass intake. The optional Wihle roller has even more aggressive spacing

and is recommended for firmer greens.

A *new front reel shield* acts as a recycling device. It helps to channel the grass clippings into the basket keeping the green and also the front roller free of clipping debris.



New Baskets

They are larger, more open, making it easier for grass to enter in and air to escape. A rubber flap on the lower lip also helps prevent grass from dribbling out.

The Greensmaster 3200 has four cutting unit combinations available to meet your specific needs: Single Point Adjustment (SPA) or 4-bolt adjustment of either 8 or 11 blade reels.

Biodegradable Oil-Ready

Toro's commitment to environmental protection is ever present with the 3200. This one is biodegradable oil-ready. Because using biodegradable hydraulic oil not only limits turf damage should a spill occur but also means easier cleanup and less environmental toxicity.

Hydraulic Leak Prevention

Of course, Toro provides its patented Turf Guardian® leak detection system. It detects hydraulic oil leaks after a minute loss of oil. In fact, it's standard on the gas model, optional for diesels.



But quite frankly, Toro put more study into the cause of oil leaks, hence the 3200 innovatively uses fewer hydraulic lines, the proper hose bending radii, monoblock connections, protective hose placement and centrally located bulkhead mounting.

Service Accessibility

Just lift the seat and you have easy access to most of the 3200's engine and hydraulic system service points. Oil dipstick and fill. Battery. Fuel and oil filters. And other points of visual inspection.



The optional cooling system is located in a protective but easily accessible area. The removable air intake screen quickly snaps off for cleaning.



Lift pivots are simplified. The new reel design is rugged, linear and easy to service.

The gas unit offers the added advantage of its Automated Control Electronics or ACE™. A Toro exclusive that aids the mechanic in

determining hydraulic versus electrical problems. All in all, the 3200 is designed to turn downtime into short time.

On Your Schedule

You're buying 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 Greensmaster® 3200 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.

Innovation and Quality

The Greensmaster 3200 is a revolutionary product that far exceeds conventional greens mower results providing the highest in quality of cut and enhancing operator capabilities for the best performance. What remains is your testimony. See your local Toro distributor today for the ultimate proof — a demonstration experience you won't regret.

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A journey through the ACSP certification process

Part 2



BY GREG PLOTNER
AND SHELLY FOY

In part two of the series on becoming a fully certified Audubon Cooperative Sanctuary, the Medalist Golf Club is applying for certification in Water Conservation and Water Quality Management.

But first, let's see how we did with the Resource Inventory and Environmental Planning category.

After completing the Resource Inventory for Medalist Golf Club, it was sent to Audubon International staff for their review. They in turn sent us an Audubon Conservation Report written specifically for Medalist Golf Club. This report contains an overview, as well as specific projects and programs they feel would be beneficial to the golf course.

The four-page Medalist Audubon Conservation Report commended us for the extensive amount of natural habitats that were preserved, including wetlands, pine scrub and sand pine flatwoods, and the careful use of resources to prevent pollution and depletion.

Recommended Projects within the Conservation Report are as follows:

Wildlife & Habitat Management:

- Create wildlife "corridors" between habitat areas
- Plant flowers for hummingbirds, butterflies and songbirds
- Mount and monitor nesting boxes
- Mount a bird feeder
- Begin a wildlife inventory
- Add shoreline vegetation to water features where possible

Public Involvement & Education:

- Display registration certificate and other ACSP information
- Host wildlife walks or habitat tours
- Mount educational signs in naturalized areas
- Use newsletter to promote conservation efforts and educate golfers
- Create a simple brochure to highlight your ACSP participation
- Encourage homeowners/neighboring properties to get involved
- Invite local groups or school classes to help with projects such as nest boxes or wildlife inventories

Integrated Pest Management:

- Expand scouting and monitoring - designate one lead scout
- Reduce turf stress from carts, low cutting heights, and traffic
- Mount bat houses

Water Conservation and Water Quality Management:

- Mulch landscape plantings and garden areas
- Improve aquatic habitat and reduce nutrient inputs around water features by planting shoreline vegetation
- Discourage golfer activity and avoid heavy maintenance in and around wetlands
- Evaluate maintenance area for actual or potential water quality problems

When applying for certification in any category, Audubon staff will send you a Certification Status Report (which is new). This report lets you know exactly where you stand in the program; Categories Achieved, Categories Pending, and Categories Remaining. There is also a Certification Summary.

The Certification Summary for the Environmental Planning category let us know that additional development in IPM would be needed before certification could be granted, which includes:

- 1) Maintenance of written records including monitoring activities, control measures used, and results
- 2) Reduction of turf stress due to carts, traffic, or low mowing heights
- 3) Use of least toxic pest controls

Additional projects will also need to be developed in the Public/Member Involvement category. Suggestions were offered such as putting up a display in the clubhouse or pro shop using certificates, art prints and photographs of projects we are working on. It was also suggested that we pursue having local community experts on wildlife help with specific projects.

We found both the Audubon Conservation Report and the Certification Status Report to be well written and filled with good information and suggestions for project implementation. Our Resource Advisory Committee will be meeting soon to start working on some of the recommendations.

The following is information submitted for certification in Water Conservation and Water Quality Management. We're making progress here at the Medalist Club toward becoming a fully certified Audubon Cooperative Sanctuary, and we hope you are too!

Certification for Water Conservation

Water conservation efforts at Medalist Golf Club have been implemented that demonstrate the Club's commitment to wise water use and environmental stewardship. The Club understands the importance of water conservation and the perils of the overuse of water.



The following is an overview of the Water Conservation Program for Medalist Golf Club:

Irrigation System

Medalist Golf Club has a Rain Bird Maxi - System V Irrigation System in use at the present time. The Maxi System allows us to interact among the various field satellites (Rain Bird MSC 24) in order to maximize the overall efficiency of the entire irrigation system. The irrigation heads are predominately Rain Bird Eagle Rotors.

Connected to the Maxi System V is the Maxi Weather Station. The station monitors daily climatic conditions, such as rain, wind speed and direction, solar radiation, air temperature and humidity. This monitoring allows the weather station to calculate an ET value for the previous 24-hour period. This information is then communicated to the Maxi System.

The Maxi System will then provide for automatic daily adjustments to the irrigation schedules. Due to soil conditions that tend to be very sandy and have high infiltration rates, normal irrigation cycles tend to be set at 100% of the daily ET rate.

Also connected to the Maxi System V is the Freedom System for Maxi. This is a radio operated system that integrates with the Maxi to provide control of the irriga-

tion system from remote locations. The Freedom also provides voice communication to and from the field as well as remote locations.

These hand held units save us a lot of valuable time by being able to access the irrigation system from anywhere on the golf course. The Freedom System also allows for telephone calls to be received in the field, which is sometimes very convenient.

Water Source

Three sources of water are available for irrigation use at Medalist Golf Club. Our primary source is effluent water that is received from Hydrotech Utilities in Hobe Sound. The water is directly piped to our irrigation lake and quantities received are recorded daily.

If sufficient quantities of effluent water are not received for irrigation purposes, there are two 4-inch groundwater wells available for use. It is our intent to limit the withdrawals of groundwater for irrigation purposes to the maximum extent possible.

A third source of water is also available for irrigation purposes. All storm water and irrigation water is retained on the golf course, with excess water being captured and transferred back to the irrigation lake for future reuse.

It was Medalist Golf Club's desire to use this water as our primary source for irrigation purposes, but an upcoming modification in our water-use permit will prevent this water from being used. A more thorough explanation of why the storm water cannot be used for irrigation will be discussed when Medalist Golf Club applies for Certification in Water Quality Management.

Watered Areas and Frequency

Irrigation at Medalist Golf Club is minimized to the maximum extent possible at all times and watering is avoided as much as possible during peak evaporation periods. We recognize that the amount of water a plant requires to stay healthy can vary greatly from day to day.

Our Maxi System V, that is ET sensitized, when used properly, allows us to

save resources such as water, power and turf products while improving the quality of the playing surfaces. Irrigating when needed and in the proper quantities equates to better overall plant health.

Medalist Golf Club is unique in the fact that there is no cut of rough on the golf course. Fairway acreage is approximately 27 acres and is normally watered 2 to 3 times per week. Greens, tees and approaches are closely monitored and watered on an "as needed" basis. Hand syringing in these areas is often done to keep "hot spots" to a minimum.

Water Recapture and Reuse

As mentioned previously, Medalist Golf Club captures all storm water and irrigation water received on the golf course through an extensive collection system and then transfers this captured water back to the irrigation lake with the use of a series of pumps. This water is then available for future reuse purposes. Absolutely no discharge of storm water or irrigation water is to occur at Medalist Golf Club at this time. A modification of our water use permit in the near future will change this.

***Absolutely no discharge
of storm water or
irrigation water is to
occur at Medalist Golf
Club at this time***

Turfgrasses

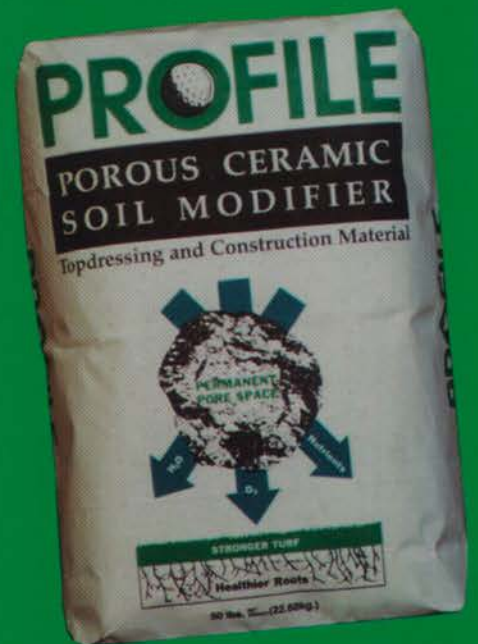
Medalist Golf Club has Tifdwarf bermudagrass greens, tees and approaches. Fairways are 419 hybrid bermudagrass with the exception of Fairways #17 and #18 which are GN-1, a new hybrid bermudagrass on the market. There are only 40 acres of turfgrass on the golf course and all is mowed to a height of 1/2" or less. There is no cut of rough on the course.

What Holds Water Like A Peat But Drains Like A Sand?

PROFILE Porous Ceramics is having a significant impact on the way golf courses are constructed and managed. For thirty years organics have been the only material available to improve the water and nutrient holding capacity of sand topdressing and construction mixes. However, organics accomplish this at the expense of internal drainage.

PROFILE is not an organic. It is stable porous ceramic aggregate the size of sand that contains thousands of internal and external pore spaces. These pore spaces hold water and oxygen in a 50/50 balance to help create ideal soil balances while maintaining high percolation rates. Golf Course Superintendents, research and field studies have consistently proven that **PROFILE** prevents and eliminates localized dry spot, **PROFILE** improves drainage and **PROFILE** improves nutrient holding capacity.

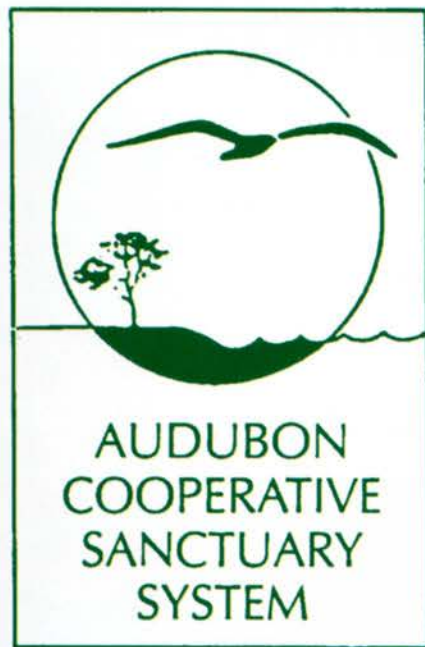
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Water Distribution

Irrigation water is distributed to the golf course by a Flowtronex PSI VFD pumping station. This pump station has a delivery capacity of approximately 1800 gpm through the use of three 75 HP Newman motors.

With the assistance of a full-time irrigation technician, we are ensured that the irrigation system is operating as efficiently as possible at all times. Individual sprinkler heads are frequently checked and monitored to ensure proper and even water distribution.

With the aid of the Maxi System, a failure in the irrigation schedule is easily detected and corrected immediately. As one can see, there are many checks and balances to ensure that the system is operating as efficiently as possible.

Mulches

Medalist Golf Club recognizes the importance of mulches and makes it a practice to use these materials whenever and wherever possible. Pine straw is used extensively on and around the golf course. The straw helps to stabilize the native areas surrounding the course by preventing weed seed from germinating, minimizing the blowing of native sand into the playing areas and providing an area surrounding each hole that a golf ball can come to rest in, be found, and be played.

Wood chips have been used at Medalist Golf Club to build maintenance paths in the native areas of the course. Selective under brushing of non-desired plant species, that is then chipped, generates some of the material that we use to build these paths.

All landscaped areas on the golf course and its related amenities, such as the Halfway House and the comfort stations, are mulched. Choice of products used range from pine straw and wood chips to cypress mulch. The clubhouse is currently under construction and the landscape plan indicates that all beds will be mulched.

Water Reduction

Medalist Golf Club realizes that the supply of water in the world is finite. Water is neither created nor destroyed. We recognize that water is a commodity and we attempt to conserve it in every way possible.

From our elaborate collection system for storm water and irrigation water to our use of effluent water as our primary irrigation source, we are demonstrating to others our commitment to environmental excellence. Judicious water use is something everyone should practice and at Medalist Golf Club, we have made it a habit to use water wisely.

Water Quality Management

Water Quality Management Practices have been in place at Medalist Golf Club since construction began on the golf course in 1994. The Club's

Master Plan was designed to effectively integrate the course in a manner which enhances play, but all the while protecting the value of the surrounding wetlands and upland preserve areas.

The Martin County Growth Management Department consulted with Medalist Golf Club during construction to ensure environmental impacts in relation to the golf course design were kept to a minimum.

The wetland and upland preserves were incorporated into the golf course design in such a natural manner that minimal needs now exist for trimming or removal of vegetation from these areas.

The under brushing that is done is monitored on a full time basis by a qualified environmental professional. Any exotic vegetation (e.g. Brazilian pepper, malaleuca) that is found on site must be removed. This must be accomplished without the use of heavy equipment and any areas left void of vegetation due to the removal of exotics must be revegetated with appropriate native vegetation.

To further protect the wetland features on the golf course, all golf cart crossings are elevated boardwalks. Field inspections during construction by Martin County staff ensured the crossings were located in the least damaging areas.

These elevated cart crossings allow for wildlife corridors within the wetlands to remain open. Protecting our wetland areas is important to Medalist Golf Club, for we understand the significant role these wetlands play in supporting the various wading birds, birds of prey and small mammals that are present here and normally associated with these types of areas.

In conjunction with the Club's Site Development Plan, it is our commitment to see that all wetland and preserve areas are maintained and improved upon to reach a high utilization level in these areas by various types of wildlife common to our area.

Other Water Quality Management Practices include:

Water Quality Monitoring and Baseline Data

A Water Quality Monitoring Program is conducted on a quarterly basis by McGinnes & Associates Consulting Laboratories, Inc., at six different locations throughout Medalist Golf Club property. These surface water samples are collected by the "bucket grab" method and then iced for delivery to the laboratory.

Analyses include pH, dissolved oxygen, alkalinity, total nitrogen, total phosphate, orthophosphate, and conductance. This program was initiated in June of 1995 and will continue for a minimum of three years. Additional sampling locations are available and will only be used in the event that unusual or unexpected

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Get the team that stands strong against summer stress complex—Terra® Aliette® T&O and Terra® Thalonil™. This partnership provides the one-two punch you need to protect turf inside and out. It starts with the systemic action of Aliette T&O. Since it's translocated throughout the plant, turf gets top to bottom protection against Pythium blight and root rot. On the outside, Thalonil sticks to the job of keeping turf safe from brown patch, dollar spot, leaf spot, snow mold, algae scum and many

other diseases. And, since there is multiple site activity, there is minimal risk of resistance. Together, Terra Aliette T&O and Terra Thalonil put control of summer stress complex in the bag. It's the pair that'll fit your turf disease program to a tee.



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results were to appear from the original six locations.

Four groundwater monitoring wells are also being sampled within the requirements of Medalist Golf Club DEP Land Application Permit. A few of the parameters that are being measured at these well sites include: nitrates, chlorides, pH, total phosphorous, total dissolved solids and total nitrogen.

In accordance with a mutual consent agreement between Medalist Golf Club and South Florida Water Management District, time zero and baseline monitoring reports are soon to be prepared. These reports will establish parameters that must be maintained within our Wetlands Mitigation Program. This reporting will continue on an annual basis for a period of five years. Tom Lucido and Associates, Inc. will be preparing these reports for Medalist Golf Club.

Wetlands

All wetlands within the property of Medalist Golf Club are protected and appear to be in a very viable and productive state. The Time Zero and Baseline Monitoring Reports being prepared by Lucido and Associates, Inc. will provide the club with valuable information that can be used to ensure these wetland areas remain pristine and productive.

Under the guidance of David Coogan,

the Club's environmental technician, and with the assistance of Environmental Waterways, our lake management consultant, the wetland areas are frequently monitored to ensure that exotic vegetation is removed upon its discovery. Also, other nuisance species such as torpedo grass, spike rush and duck weed are kept to a minimum, either by manual removal or spot chemical treatment.

Buffers and "No Spray" Zones

Medalist Golf Club has implemented a program, with the assistance and guidance of David Coogan, to plant vegetative buffers within the man-made water features on the golf course. These plants as they mature will filter excessive nutrients from our water bodies.

The surface water sampling program will assist us in monitoring nutrient levels, and hopefully these aquatic plants will help to ensure these levels are kept in check. It should be noted once again, that no runoff from the golf course is allowed to enter our water bodies.

All runoff from storm water and irrigation water is captured on the course and transferred back to the irrigation lake. This elaborate drainage system will aid in keeping our water bodies in a healthy state.

Our IPM (Integrated Pest Management) technician has been instructed not to spray directly into or near the water bodies on the golf course when applying turf products. This procedure will minimize potential contamination of our water features.

Also, our lake management applicator is instructed to check in with the Golf Maintenance Department prior to applying any products. This open communication line is important, as this procedure ensures us that only areas within our water bodies that need to be treated are being treated.

Drainage

As previously mentioned, all storm water and irrigation water that is received on the golf course is captured and then returned to our irrigation lake. This lake is lined with a 40 mil polyplastic

liner. Effluent water is also received and stored in this holding area. The resulting mix of water becomes what we use to irrigate the golf course.

No filtering mechanisms are currently being used within our irrigation lake. However, opportunities to improve the quality of the irrigation water are being explored. Random sampling of the water is done to ensure nothing harmful is being applied to the golf course.

Such tests include pH, total dissolved solids, chlorine levels and dissolved oxygen. Should any of these levels become a concern, corrective measures will be taken.

Chemical Additives

Other than occasional spot treatments for unwanted vegetation within our water bodies, no chemical additives are currently being used at Medalist Golf Club. These spot treatments are kept to a minimum and used only if manual removal is not economical or is not feasible.

Other Water Quality Management Strategies

Medalist Golf Club has installed an equipment wash down system which is very efficient at removing particulate matter from the water that is used to wash down the maintenance equipment. This system was installed by Chemical Containers, Inc.

All runoff from storm water and irrigation water is captured on the course and transferred back to the irrigation lake. This elaborate drainage system will aid in keeping our water bodies in a healthy state.

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Management Programs at an Audubon Signature course

BY ADAM FELTMAN, AGCS

On December 12, 1994, The Champions Club at Summerfield, located in Stuart, became the first public golf course to be certified as an Audubon Signature Cooperative Sanctuary. The Tom Fazio-designed course is 6800 yards long and a definite challenge from the back tees.

Yet, from the middle and forward tees, it is a fair test for the average golfer. The golf course is routed through 300 acres of "point of no return" marshlands. With over 100 acres of maintained turf, including four acres of greens and 40 acres of fairways, the course has generous layout areas with strategically placed multi-tiered greens. Most of the holes are bordered by wetlands and are maintained so as not to disturb the sensitive wildlife habitat.

Being a public golf facility as well as an Audubon Signature member creates a challenge. Participation in the Signature Program does not end with Signature designation. There is an ongoing effort to upgrade the golf course and to implement new projects and technologies.

Enhancement of Wildlife Habitat

No mechanical devices of any type are used in the wetlands. We hand pull all unwanted plants such as dog fennel, primrose, Brazilian pepper, and melaleuca. They are replaced with natural and native vegetation such as cord grass and flame grass. This not only cleans up the wetlands, but aids in making homes for some of our host animals. This work also adds definition to all holes, and the golfers enjoy seeing just how true and peaceful a wetland can be.

In an effort to attract as many species of birds as possible, we have placed bird houses as far as 75 yards into the marsh. We estimate our present list of observed species at over 100. This includes bald eagle, king fisher, great blue heron, osprey, sandhill crane, quail, red-tailed hawk, great egret, and ibis.

In addition to birds, fox, deer, raccoons, hogs and even a horse or two may be seen on the course. All of the wildlife adds enjoyment and contentment to the golfing experience at Summerfield.

IPM Management

Golfers and wildlife can feel safe and secure knowing that an Integrated Pest Management program is practiced at Summerfield. Some weeds are allowed to grow in order to preserve natural features, especially near wetlands.

Rain days turn into hand-pulling weed days when the course is too wet to mow. This not only reduces the need for herbicides, but dwindles the weed population to eventually make a weed-free golf course.

Insect populations are monitored and scouted and only sprayed when damage is extensive. A short-lived, no-residual chemical such as Orthene is used to prevent leaching into ponds or wetlands.

Using a biological control for nematode hot spots has worked very well. A preemergent herbicide is applied once a year to help control most annual weeds.

Another practice used is the application of Primo growth retardant. Primo is



The golf is routed through 300 acres of "point of no return" wetlands. A wood stork (an endangered species) forages the wetlands.

used on tees, collars and fairways and helps reduce thatch and clippings. Buckets are not used when mowing tees, collars and fairways so that we have nothing to dispose of except clippings from greens. Using Primo allows us to skip mow on hot, wet summer days.

With a small crew of eight, this means a lot. Aeration, scalping of fairways and a good fertility program allow us to have tightly manicured fairways all year long.

Almost 75% to 80% of our fertilizer is slow-release. This is not only good for the environment, but helps us control growth without receiving too much growth at once. It also helps control leaching into wetlands and other areas.

Water Practices and Irrigation

The entire Summerfield development and The Champions Club are on a low energy- and water-usage program.

It's 7 a.m., March 25th at the Pineland Golf Club.

The first tee time is 8 o'clock.

Groundskeeper Sam Perkins is spraying for an infestation of mole crickets next to Lake Isabella, which borders holes 1, 2 and 3.



What do you do?

- a.** Tell Sam he can't spray near Lake Isabella.
- b.** Close holes 1, 2 and 3. Play only 15 holes today.
- c.** Use **DEVOUR**, a biological product containing beneficial nematodes that attack mole crickets and stop their feeding in 10 to 20 days.

The correct answer is "c". **DEVOUR** is the safe, sure way to control mole crickets on your course. A carefully-timed, spring application of **DEVOUR** puts billions of cricket-destroying nematodes to work in the soil. The nematodes seek out and hunt down overwintering adult crickets, killing them before they lay their eggs.

On-course tests against traditional chemicals have proven the effectiveness of **DEVOUR**. In 28 out of 32 trials **DEVOUR** achieved an average of 85% control, even 10 weeks after application.

But as tough as **DEVOUR** is on crickets, it's exempt from EPA and WPS regulations. And there's no offensive chemical odor to deal with. **DEVOUR** can be tank mixed with most fertilizers and pesticides, too. So call your UHS representative now, and ask for **DEVOUR**. It's your answer to effective mole cricket management this spring.

Devour[®]
DEVOUR is a registered trademark of **bioss**, Inc.
Always read and follow label directions.

"We estimate our present list of observed species at over 100. . ." A flock of white ibis at Summerfield is pictured above.



Monitoring of piezometers on our course and the entire project takes a great deal of time. Monitoring wetlands depth and pump management tables is required. Our wetlands have gone up by 3 feet and down to bone dry during the last year.

Our Rain-Bird Maxi 5 irrigation system is a great asset to our course. This system allows us to put out the exact amount of water needed with as little waste as possible.

Irrigation heads are finely tuned to water only areas of turfgrass. Water is not spewed into wetlands or onto cart paths. Various nozzles are installed to lengthen or to shorten water sprays and insure turf quality without harming any natural vegetation.

Using wetting agents over the entire golf course helps conserve and limit the amount of water applied on our project. These wetting agents are applied through a liquid fertigation system so that mechanical spraying and golfer disruptions are not required.



This raccoon family adds enjoyment to the golfing experience at Summerfield.



From Bald Eagle to Quail (above), all wildlife benefits from Summerfield's Integrated Pest Management Program.

Public Awareness and Involvement

Understanding wildlife and how habitat enhancement helps populations increase will help the general public and our golfers to know why we do some of the things we do at Summerfield. We have adopted three local schools into our sanctuary program. Educating children as well as adults about wildlife through tours, educational workshops and enhancement projects can only benefit everyone.

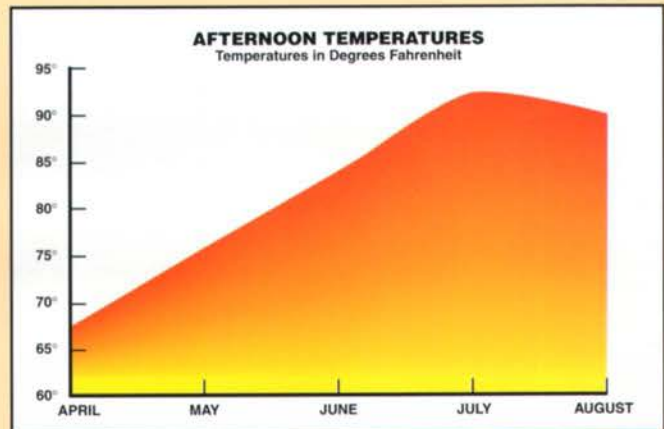
SURVIVING THE SUMMER OF 1995

Nutters Crossing, Salisbury, MD



FEBRUARY 22, 1995

Aerial infrared photography was used to determine the distribution and moisture content on the golf course. Fairways, tees, and surrounds display more uniformity and moisture content than greens.



FEBRUARY THROUGH AUGUST

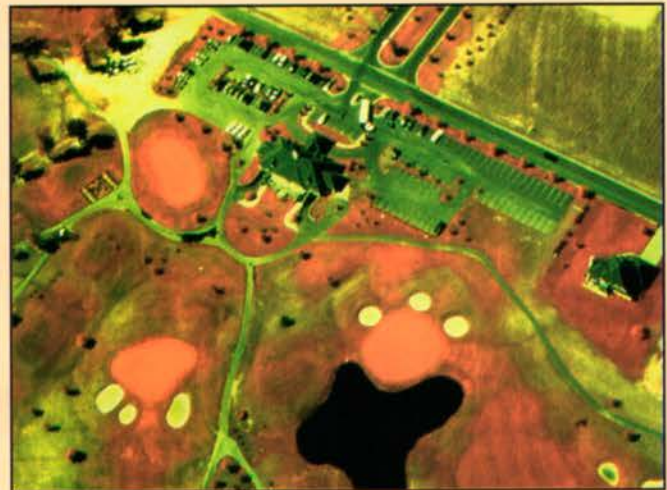
Environmental conditions worsened during the late spring through summer months. Temperatures became very hot and rainfall was more than 12 inches below average, resulting in extreme stress to turfgrass. In many areas of the golf course, turfgrass continued to weaken during this period.

Primer® 604 Performs...

"It wasn't as hard to manage the course this summer as it would've been without Primer. If my greens made it through the summer of '95 with Primer, they can make it through anything."

Chuck Poole

Chuck Poole, Golf Course Superintendent
Nutters Crossing, Salisbury, MD



AUGUST 22, 1995

Primer 604 was applied to greens on a monthly basis at labeled rates, February through August. Fairways, tees, rough, and surrounds show moderate to severe stress. Greens exhibit excellent uniformity and moisture content.



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The philosophy of the classroom in one generation will be the philosophy of the government in the next generation

-Abraham Lincoln

Educating the leaders of tomorrow



"Ask them questions and see what they know, and what they believe. Let them talk and participate." Darren Davis goes one-on-one with a visiting student.



Talk about turgrass and discuss the environmental and economic benefits.

BY DARREN DAVIS

Olde Florida Golf Club

If you think about it, this really holds true in today's world. In just 11 years, many of today's fifth graders will have graduated from college with four-year degrees and could have jobs dictating what we do. The kids we help educate today could be future EPA officials, legislators, or even members of your golf course.

So what role can golf course superintendents play in educating kids about the environment? The most important thing we can do is give them the correct information. So, how do we do this?

Go into the classroom.

Call and volunteer to be a speaker in your child's class or a school close to you. If you are uncomfortable with this, make it easier on yourself by showing slides or a video.

Either can act as your "crutch" or "prompt" to remind you of the things you want to talk about. If you have a camera, buy some slide film. It is very inexpensive to develop. If you already have great photos, they can be made into

slides for approximately \$1.

What slides do you show? Some examples would be:

- A slide depicting the "edge effect." Explain that the edge is abundant with wildlife and that smaller animals are hiding from larger ones and that they feed around the edges.
- Wildlife on the golf course. Tell them what species you have and the efforts you take to protect and enhance their habitat. Encourage them to keep a wildlife inventory at school and at home.
- Show a wetland and tell them about your efforts to enhance water quality.
- Slides of your crew working help tell about golf's effect on the economy. Example, "My club employs 30 people on a year round basis." Also let them know that golf courses in the U.S. contribute \$18 billion a year to the economy.

As for videos, the GCSAA (800-472-7878), the USGA (908-234-2300) and the ACSP (518-767-9051) all have videos on golf and the environment. Borrow

one, or better yet, purchase one and use it by showing it to golf course employees, and member/golfers.

Sign up a school

Sign up a school close to you in the ACSP for Schools. Volunteer to pay their registration fee and to help in any way you can.

Examples of things you can do would be to help them fill out their resource inventory or help with sanctuary projects such as installing nestboxes, nature trails, helping design wildlife gardens, or even providing resources they may need such as plant material or mulch.

Giving school tours

Bring the classroom to you by inviting a class out for a tour of your golf course.

Things to consider:

- What time is convenient for you? Is the golf course closed on a certain day? Is the winter or spring a busy time for you?
- How many kids do you want to invite? Consider their ages, attention span, etc.

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3. Helps Eliminate Algae on Greens
4. Increased Aerobic Bacteria, a Natural Predator to Nematode Eggs
5. Increased Water Penetration and Percolation
6. Aids in the Decomposition of Thatch

Turf Formula is a non-toxic and environmentally safe product which contains stabilized micro-organisms from the following genera: *Azotobacter*, *Bacillus* and *Clostridium*.

Turf Formula is a premium soil amendment and bio-catalyst with a four year shelf life.

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- Consider providing drinks, and maybe stop halfway through the tour to let them rest and have time to enjoy nature.
- Ask them questions to see what they know, and what they believe. Let them talk and participate.
- Know how much time you have and take the time to plan your tour ahead of time. Where will you stop? What topics will you discuss at these places?

Suggested tour stops

Water - a lake, pond or wetland area
Tell them about things you do to conserve water (part circle heads, etc..) In wetlands, what plants and animals live there? Discuss what a wetland is and why it is important.

Turfgrass - Tell them what a good filter turfgrass is and that it helps recharge the groundwater. Discuss how it produces oxygen, and on 18 holes, enough oxygen is produced for 4 - 7,000 people to live on. Golf Courses are good green spaces and are 3 - 5 degrees cooler than a city and that they also reduce noise pollution.

Treesnags - Tell them that snags make good homes for cavity nesting birds - and that when you can, you leave them standing.

Lightning protection for trees - Why it is important to protect the trees on a golf course.

Weather station - What is it? How does it work? What information does it collect? Discuss how it converts information it receives into ET rates.

Wildlife - Explain that they need four things to survive: water, food, cover and space. Explain that they might not be seeing a lot of wildlife activity during the tour due to the fact that some animals are nocturnal, and that others may be scared away by the noise of the tour and will return later.

Giving school tours. How many kids do you want to invite? Consider their ages, attention spans, etc.

Maintenance Facility - This is a good place to discuss IPM and the programs you implement to enhance and protect the environment on and around the golf course.

Sometimes it is a challenge to hold kids' attention. I play a question-and-answer game, and the child who gives me the correct answer rides in my golf cart until the next stop.

Be totally honest with the kids.

Yes, we periodically use pesticides. When a question comes up, explain to them that pesticides are a part of daily life that includes golf courses, home lawns, or other turfgrass areas.

I have been asked several times, "if these things are so safe to be around, why do your employees wear moon suits or protective coverings?" It is easy to explain.

The best analogy I like to give is, yes, we do provide protective gear for our chemical technicians or IPM specialists, but think about it this way. When you go to the dentist, don't you wear a lead apron to protect yourself from radiation when they take x-rays?

The kids will shake their heads, yes. I ask what does the technician do before they take the x-ray? They leave the room. That's because they don't want to be exposed on a daily basis to radiation.

Radiation is considered safe in small, infrequent doses. But if you were exposed to radiation on a daily basis, it could be harmful. So, by having our IPM technicians wear protective clothing, we are protecting them from chronic exposure.

Before the kids leave the golf course, I give them a handout from the USGA titled, "Golf Courses Benefit People and Wildlife." It is written in easy-to-understand terms and everyone who reads it will know the benefits of golf courses to wildlife, people and the community.

My hope is that they take it home with

them and that their parents read it as well. You can receive copies of this brochure from the USGA.

Conclusion

Giving talks can be intimidating. However, you've got something going for you. Think back to those days of childhood when "field trips" meant you didn't have to be in school. It is definitely easier to talk to school children than to your peers.

When giving school tours, you're not only educating kids, but teachers and school administrators as well. If bringing kids out on the golf course is not an option for you, consider a tour for a local garden club, native plant society, or Audubon group.

So how do you know when you've been successful? This is one of the many thank-you letters we have received after a school tour:

When my class went to Olde Florida Golf Club we had a lot of fun. Mr. Davis took us around the course and told us many interesting facts about the golf course. He also gave us quizzes. I learned that golf courses are good places for animals because it provides homes for them. Chemicals are only used when necessary. That means that

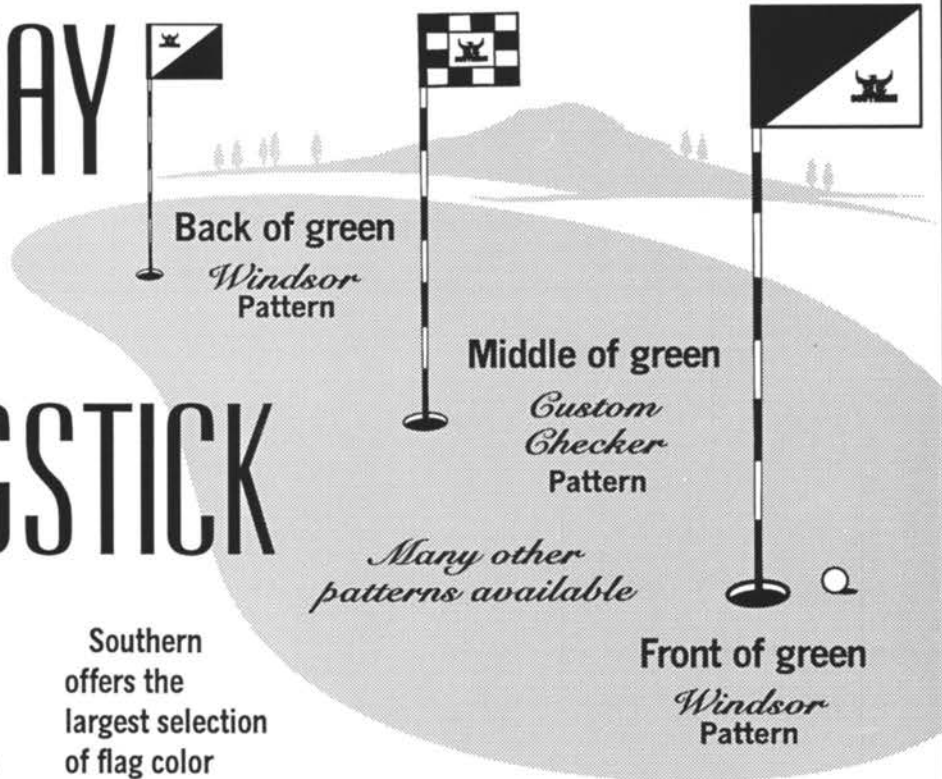


"Show them a wetland and tell about your efforts to enhance water quality... what plants and animals live there?"

woodpeckers, alligators, deer and snakes can live there in safety. Something I will never forget is that golf courses are not harmful to people or animals.

As you know, government, and others, are making this job tougher every day and if we can't change the minds of today's government, maybe we can educate tomorrow's government!

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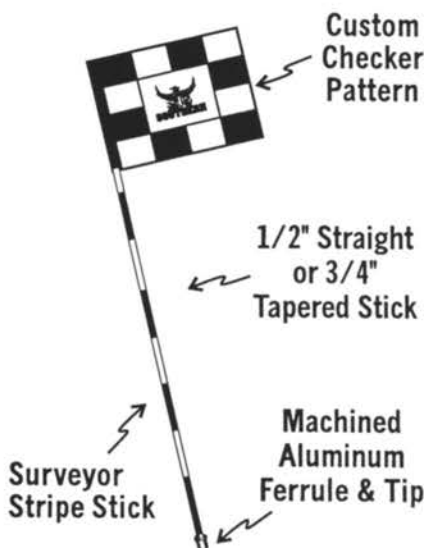
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Falconer Leslie Braun releases Sheela, a red-tailed hawk, back to the wild.

Free Again

Sheela, a one year old female Red-Tailed Hawk, was released on the #2 hole on Disney's Osprey Ridge Golf Course. When released she weighed almost three pounds and had a wing span of over four feet.

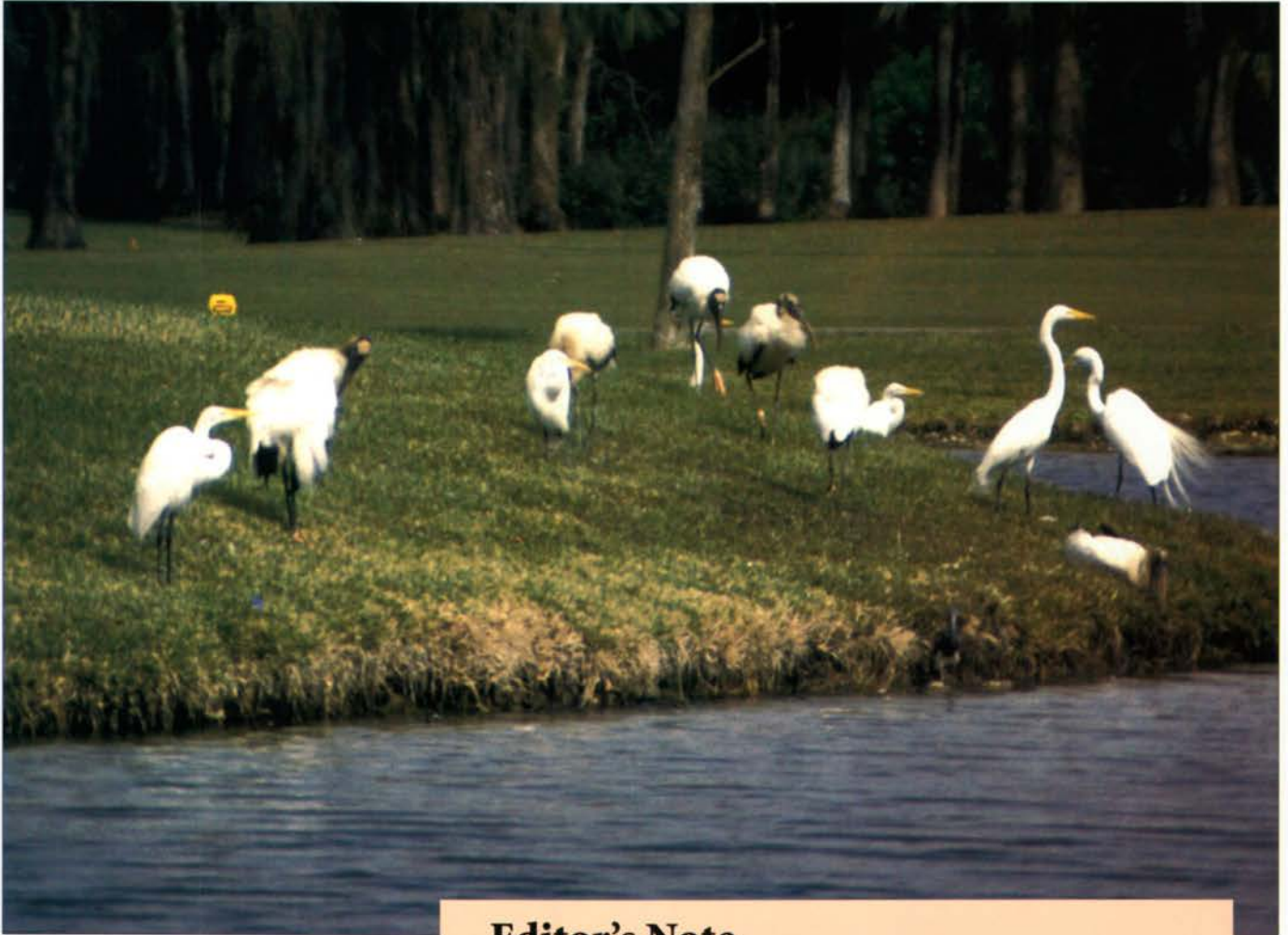
Sheela was captured after leaving the nest by a falconer, Leslie Braun. Sheela was cared for and taught to hunt for survival in the wild. Almost 80% of these birds die in their first year from accidents, starvation and

deliberate killing. Since hunting is not allowed on Disney property and Sheela has passed her first critical year, we hope to see many other generations in the future from this release.

Look for Sheela in a tall pine tree, while she sits and watches open areas near the woods for food. Her red and brown color will blend with the trees. If you want to see her you'll have to look close.

Leslie Braun

1995 Wading and Water Bird Survey on Florida Golf Courses



BY C. ELROY TIMMER

*Biologist for Environmental
Waterway Management, Inc.*

The golf course superintendents' position in the 90s is very complex and challenging. They are required to be expert in many fields. Not only are they "turf experts" but they require skills and knowledge in communication, construction and maintenance.

Editor's Note

In 1994, C. Elroy Timmer initiated the Wading & Water Bird Survey to do some fact finding about the true impact of golf courses on bird populations. This is the results of the second year of surveying and, since the response is growing annually, perhaps, as Mr. Timmer indicates, we need more in the future. If we can't conduct the surveys ourselves, maybe this would be a good opportunity to partner with some qualified bird watchers and Audubon members to inventory the multitude of bird species using golf courses for food and shelter. - Editor.

**Table 1
Participating Golf Courses**

Collier's Reserve CC • Heron's Glen GC • Lake City CC • Palm Beach CC • The Oaks • World Woods GC • Countryside Executive GC • Jonathan's Landing Old Trail • Bonita Springs CC • Plant City GC • Don Shula's GC • Serenoa GC • Inc. • Hibiscus GC • Wilderness CC • Oak Hill GC • Pine Island Ridge CC • Boca Delray G & CC • Delray Dunes G & CC • Boca Pointe CC • Presidential GC • The Greens GC • Highland Lakes • Orangebrook GC • Martin County G & CC • Banyan GC • Silver Dollar Golf • Oak Run CC • Continental CC • Burnt Store CC • Hunter's Green CC • LPGA International • Orchid Island G & BC • Frenchman's Creek CC • Oceanside G & CC • Spanish Wells G & CC • Indian River Colony Club • Winter Pines GC • River Hills • Water Oak CC • Cross Creek CC • Lemon Bay GC • A. C. Read GC • Lone Pines GC • Jacksonville G & CC • Boynton Beach Municipal CC • Fisher Island • Rolling Hills GC • Fiddlesticks CC • Del Tura CC • Countryside CC • Village Golf CC • Cocoa Beach CC • John's Island Club North Course • John's Island South Course • Cypress Knoll GC • Palma Sola GC • Palm Gardens GC • Seven Rivers G & CC • Woodlands CC • Sunny Breeze Palms GC • Lost Tree Club • Silver Lake CC • Olde Florida GC • The Links of Lake Bernadette • Tampa Palms G & CC • Naples Beach Hotel & GC • Sunrise GC • Bent Pine GC • Marcus Pointe GC • Seminole Lakes CC • Quail Ridge CC • Palm Beach National G & CC • The Meadows CC.

The golf course is a dynamic ecological system that is constantly changing and developing. Every facet of the superintendents' job is impacted by environmental issues and concerns. These many challenges need to be "handled" in 50-plus hours a week.

Even with busy schedules, their concern for the environment is most evident in their daily management practices. Even at superintendent association meetings, outings and seminars environmental issues are a major topic of conversation.

Environmental concerns are part of every day life on the golf course, as is solving the myriad "challenges" proposed by members and regulatory personnel. Yet superintendents still devote valuable time and effort to our water and wading bird surveys. (Table 1)

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Seventy six responses, 68 in February, (Table 2) throughout Florida add significantly to the credibility of the survey. The number of birds per acre in the 1994 study was so high, a follow-up survey to confirm the results and to see if trends are consistent was needed.

After a year of reflection, several issues should be addressed:

1. Are these birds an asset or liability to the golf course?
2. What are the superintendents' responsibilities?
3. Are the bird counts really accurate?
4. What can we do to enhance the environment; create habitat?
5. What other "assets" (birds, fish and wildlife) need to be counted?

Table 2
Comparison of February Counts in 1994 & 1995

	1994	1995
Golf Courses Participating	48	68
Total Acres of Golf Courses	7503	8659
Total Acres of Lakes	1258	1714
Total Number of Lakes	585	740
Total Acres of Lakes per Golf Course	12.2	10.9
Average Acre of Lake per Golf Course	26.0	25.2
Average Lake Size (Acre)	2.1	2.3
Birds per Acre (1994 Categories)	4.8	3.6
1995 Data		
Total Acres of Forested Acres	1651	
Acres of Forested Area per Golf Course	24.3	
Total Acres of Littoral Zone	157	
Acres of Littoral Zone per Golf Course	2.3	
Birds per Acre 1995 Categories	4.2	

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Assets or Liabilities

The environmental community agrees that the Everglades is very important to wildlife, not only on a local or state level but on an international level. They also agree that the Everglades is not functioning properly.

According to *Everglades: the Ecosystem and its Restoration*, inappropriate nutrients, impoundments, water levels, salinity, and hydroperiods are but a few of those struggles.

Perhaps because of the failures of the Everglades and wetlands, golf courses are “stuck with” or “blessed with” large numbers of birds trying to make a living. These birds are a critical resource. Several bird species on golf courses are “Endangered” and many are listed as species of “Special Concern.”

Our interference with nature has led us full circle: from destroying birds’ habitat, to the birds now being dependent on artificial habitats that man has produced.

It can be debated that this is an undesirable situation but the birds have been forced to take this “course.” What are we to do? The ball’s in our court. Let’s give it our best shot! We can all do more for birds; more for their environment.

Superintendent Responsibility

Part of responsibility is planning for the future. Some of the best ecologists have failed to give good advice... so what can we do? Best Management Practice must be recalculated with birds in mind. Wherever possible use:

- 1) insecticides with a short half life; and
- 2) keep insecticides - nematicides away from the water.

The lifeline for many wading birds is a food supply consisting primarily of fish. Golf courses evidently provide an available and adequate food

source because they attract the birds.

Perhaps we can enlist a fisheries biologist to evaluate the abundance, type and availability of fisheries on the golf courses.

Pesticide scans of fish probably also should be completed. It may be devastating to find an accumulation of pesticide in fish, but it would be more devastating to lose wading birds.

It would also be a great step forward to be able to stamp “A Clean Bill of Health” on golf course fisheries.

Survey Accuracy

Little blue herons and tricolored herons are sometimes misidentified; a few great egrets are counted as great white herons; or perhaps the most common mistake is cattle egrets being counted as snowy egrets.

This does not, however, affect an obvious and consistent picture: Large numbers of birds are utilizing golf courses. Even though the numbers are somewhat less than last year, they maintain a most obvious relationship year- to- year. (Table 3)

In both 1994 and 1995 surveys, the population density for water and wading birds differed extremely from one golf course to the next. Golf courses which have 10 acres or less contain a great deal more birds per acre than golf courses that have 40-plus acres of water.

This is consistent in both years. Table 3 indicates the extreme difference. The two-year average number of birds on golf courses with less than 10 acres is 15.25 per acre and for those golf courses with more than 40 water acres, the number is 2.74.

What is the difference? Some of the difference may be explained by white ibis, gulls and terns using the courses (but not necessarily feeding at the water).

However, most other species also reflect this trend. Perhaps smaller lakes receive more nutrients from a

The lifeline for many wading birds is a food supply consisting primarily of fish. Golf courses evidently provide an available and adequate food source because they attract the birds.

larger watershed and therefore are more productive. Perhaps this is a question we need to pose to our scientific community.

Lake design may be the critical factor in bird utilization. But what is that design?

If one examines the data of Hoyer & Canfield, which are larger lake systems (Table 3) and compares it with lake systems with more than 40 acres (Table 4), the discrepancy between golf course lakes and large natural lakes decreases... particularly, with the added category of ducks, geese, and coots.

The total number of wading birds per acre listed on the 1995 survey for

golf courses with more than 40 acres of water is 2.78. The per-acre calculation for Hoyer & Canfield is 0.928.

Enhancing Our Environment

Although many birds on the survey are fish eaters, ducks, geese and coots eat vegetation which must be present in sufficient quantities to attract them. Sandhill Cranes are often attracted by grubs, mole crickets, invertebrates and even some plants.

Limpkins are primarily focused on apple snails but clams, insects and crustaceans are often eaten. Moorhens eat vegetation, as well as insects and aquatic invertebrates.

The golf course is obviously a very productive ecosystem to be able to maintain such a large variety of foods needed to attract all these water and wading birds (not to mention all the other birds). Perhaps "enhancing our environment" means more...

- tolerance for Sandhill Cranes roughing up the turf;
- submerged weed growth in an obscure area;
- littoral zone in areas out of play;
- areas where a manicured look to the edge of the lake is not critical.

Diets from vegetation to insects to crustaceans to mollusks to small fish to large fish will require diversification to feed so many.

Many golf courses are able to "specialize"... to make their contribution. Other organizations have enhancement goals and offer more specific guidelines. Improving our bird environment depends on help from all quarters.

Table 4
Golf Course Survey
Birds Per Acre

	1994		1995	
	Lake Size		Lake Size	
	<10 Acres	> 40Acres	<10 Acres	>40 Acres
White Ibis	4.57	0.58	2.58	0.60
Gulls & terns	3.21	0.45	2.05	0.36
Double-crested Cormorant	1.16	0.13	0.19	0.20
Common Moorhen	2.58	0.23	1.73	0.26
Anhinga	1.96	0.43	1.55	0.19
Great Egret	0.48	0.34	0.19	0.09
Wood Ibis	0.44	0.14	0.07	0.08
Snowy Egret	0.74	0.12	0.80	0.09
Green-backed Heron	0.86	0.04	0.41	0.04
Little Blue Heron	0.92	0.07	0.28	0.21
Tricolored Heron	0.69	0.04	0.06	0.07
Great Blue Heron	0.41	0.06	0.32	0.07
Great White Heron	0.23	0.04	0.16	0.05
Limpkin	0.23	0.04	0.09	0.02
Ducks geese & coots—	—	1.05	0.38	
Sandhill Cranes—	—	0.49	0.07	
Total	18.48	2.71	12.02	2.78

Other Assets

We added two new categories for the survey in 1995: 1) Sandhill Crane, and 2) ducks, geese and coots. (Table 3) These two categories represent one bird in every two acres.

Surprisingly, 189 Sandhill Cranes were counted on the 68 golf course surveys completed in February and 16 additional Sandhills in the 8 surveys completed in March. Wading

Although many birds on the survey are fish eaters, ducks, geese and coots eat vegetation which must be present in sufficient quantities to attract them. Sandhill Cranes are often attracted by grubs, mole crickets, invertebrates and even some plants.

and water birds are but a tip of the iceberg.

If the superintendents still have any sympathy for yet another survey, a survey to compile a list of all birds on their course would be very important. Two participants — preferably Audubon members with counting expertise or professionals familiar with all species — should be involved.

Fewer responses are expected but it should be a survey that will identify more of the vast resources currently under management.

Specifically, it should be a good indication of various species richness on the golf course. It's a land use that's usually exempted by normal bird counts.

Species richness may be particularly important today as habitats are changing so rapidly in Florida. Some birds that are normally habitat-specific may be required to use an alternative site.

Identifying the various species utilizing our golf course should be critical knowledge for conservationists. Researchers are encouraged to contribute their knowledge and ideas to study this apparent abundant and fairly diverse resource.

Several unsolicited responses this year included such birds as: bald eagles, red-shouldered hawks, pileated and hairy woodpeckers, Carolina wrens, northern flickers, ruddy turnstones, American kestrels, roseate spoonbills, ospreys, glossy ibis, American bitterns, reddish egret, lesser yellowlegs, owls and many more, too numerous to include.

Other assets noted in the 1995 survey include 24.3 acres of forested area per golf course and 2.3 acres of littoral zone per golf course (Table 2). Forested and littoral areas may or

Identifying the various species utilizing our golf course should be critical knowledge for conservationists

**Table 3
Utilization By Species
Birds Per Acre of Water**

Species	Golf Course Study		Hoyer & Canfield
	1994	1995	
White Ibis	0.93	0.88	0.035
Gulls & terns	0.92	0.60	0.103
Double-crested Cormorant	0.69	0.33	0.038
Common Moorhen	0.47	0.40	0.106
Anhinga	0.47	0.32	0.044
Great Egret	0.36	0.15	0.024
Wood Ibis	0.21	0.08	0.007
Snowy Egret	0.19	0.15	0.012
Green-backed Heron	0.15	0.11	0.017
Little Blue Heron	0.14	0.18	0.010
Tricolored Heron	0.12	0.07	0.008
Great Blue Heron	0.10	0.11	0.023
Great White Heron	.05	0.06	0.000
Limpkin	0.04	0.04	0.003
Ducks geese & coots	—	0.54	0.494
Sandhill Cranes	—	0.11	0.004
Total	4.84	4.13	0.928

may not be important but the wildlife resources on golf courses are impressive, directly contradicting this quote - "Most native birds cannot survive in these highly-altered, asphalt and concrete environments" - from the otherwise excellent reference book, *Florida's Birds: A Handbook and Reference*.

Many golf courses seek "bragging rights" for the architect who designed their course; their "monster" 18th hole; the fast speed of their greens; or the size of clubhouse.

Why not make list of summer and winter feathered friends? A list of

habitats appropriate for them... future plans for enhancement? List all of the assets... and create more. Then we will be doing something important for the birds environment. Then we will really have something to brag about.

Thanks to all who contributed their time and effort. Our golf courses are very valuable assets they need to be cared for and managed.

To those skeptics who really believe a golf course is not an area to find native birds, try renting a golf cart and playing a round at your local golf course.

GCSAA Environmental Award Goes to the USGA

The United States Golf Association has been selected to receive the 1996 President's Award for Environmental Leadership from the Golf Course Superintendents Association of America.

The recipient is chosen by the GCSAA board of directors based on exceptional environmental contributions to the game of golf — contributions that further exemplify the golf course superintendent's image as steward of the land.

"With the serious challenges facing the game today, the entire industry is indebted to the United States Golf Association for its commitment to producing hard data regarding the environmental impact of golf and golf course manage-

ment practices," said GCSAA President Gary T. Grigg, CGCS, Royal Poinciana Golf Club, Naples.

"We're delighted the GCSAA has taken this opportunity to acknowledge the USGA's consistent efforts to promote sound environmental stewardship," said Thomas W. Chisholm, Chairman of the USGA Green Section Committee. "It's always gratifying to have the respect of your peers in any industry, and golf is no exception."

The award was be presented at the

Created in 1991, the President's Award for Environmental Leadership has been presented:

- in 1991 to Cape Cod Study Participants, Bass River Country Club, Eastward Ho! Country Club, Falmouth Country Club and Hyannisport Club
- in 1993 to Audubon Cooperative Sanctuary Program Partners, the Audubon Society of New York State and the United States Golf Association
- in 1995 to William Timothy Hiers, CGCS, Collier's Reserve in Naples.

Environmental General Session held at GCSAA's 67th International Golf Course Conference and Show in Orlando.

In addition to conducting 13 national championships each year, the USGA funds turfgrass and environmental research; provides course rating and handicap systems; tests golf equipment for conformity to the Rules; preserves the game's history; and, in cooperation with the Royal & Ancient Golf Club of St. Andrews, Scotland, writes and interprets the Rules of Golf.

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Insect control programs are necessary so that the turf on the left doesn't get to look like the area on the right (mole cricket and armadillo damage). Photos by Joel Jackson.

Insect Control and Top Dressing Programs

The hardest winter of the 1990s is over and it's time to turn our attention to growing our warm season bermudagrasses. It only took a few abnormally warm days in February to get the overwintering adult mole crickets to come to the surface and start tunneling, and the armadillos weren't far behind rooting and digging for them.

We're all familiar with the routine: Early Spring - treat for the out-of-control damaging adults; Late Spring - apply broad applications of control products to suppress new nymphs; Summer - spot treat persistent "hot spots" with baits and sprays; Fall - hope for an early cool season!

There is always a lot of variability with success at each stage based on soil temperatures and pH, rainfall and proper timing of control applications.

The development of a new product, CHIPCO CHOICE, may herald a new breakthrough in mole cricket control.

The first Federal Registration is expected during the first quarter of 1996

and will be for golf courses only. The product will be approved for "slit applications" only. Based on trial results, Rhone-Poulenc believes one treatment should provide mole cricket protection for up to six months.

Details of Rhone-Poulenc's new *Insect Control System* will be unveiled at that time. Meanwhile, here are a few comments from folks involved in the testing of the product:

Tom Alex, Director of Golf Course Maintenance, Grand Cypress Golf Club. "With CHIPCO CHOICE, we see a clear line of delineation between our treated and untreated plots.

"Our crickets in the untreated plots come right up to the edge of the treated area, and they won't go into that treated area whatsoever. They go right up to the line and absolutely stop. Anything within the treated area — 100 percent clean. With the CHIPCO CHOICE we have a 365-day window. That makes it very flexible, and we can schedule it and get it down with minimal or no disruption to

our guests at all."

Pat Cobb, Extension Entomologist and Professor, Auburn University. "I've worked with CHIPCO CHOICE for about five years. Just to show you how it works, in one of our trials we had 36 inches of rain in July. That was followed by an extreme two weeks of 90-degree-plus temperatures, and by the end of October, no retreatment was necessary.

"I'd say that was a pretty rigorous test of CHOICE. We do see a reduction of mole cricket damage with other products if they are well timed. The difference is, with CHOICE the window of opportunity is so much greater. In our tests, one application gave us control throughout the spring and summer — season-long control."

Leon Stacey, Golf Course Consultant and Research Entomologist. "I have looked at insecticides for mole cricket control for about 18 years, and CHIPCO CHOICE is without question the most consistently effective product I've ever seen.

“We did test plots on greens, in non-irrigated roughs, on push up tees... in just about any conditions you can imagine. What we have seen is that the product works well in a variety of different soil types and conditions.”

Scott Bell, Ron Miller, Kim Shine and Mike Hamilton were among other Florida superintendents involved in the E.U.P. testing. With these ringing testimonials, we will all anxiously await the arrival of CHIPCO CHOICE to the marketplace so we can try it for ourselves.

In the meantime, here are some current insect control strategies that some of our peers are using. Matt Taylor of Collier’s Reserve sent an excellent IPM-based article and seven more superintendents participated in a fact-sharing questionnaire.



The Forest Country Club uses a Vicon spreader to accomplish their top dressing program. Photo by Rick Tatum.

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Table 1 - Insect Control Programs

Name	Mole Crickets	Worms	Grubs	Fire Ants
Buck Bunkner, CGCS Isleworth CC	Late February to early March treat all "hot spots" with Talstar or Dursban Bait. May 20th - Slit inject Dursban 2-Kote on back nine June 3rd - apply Fertilizer with Oftanol on front nine October - apply parasitic nematodes wall to wall Treat persistent "hot spots" with Molasses and Orthene or Gamma Mean.	Treat as needed with Orthene or Dursban 4E	New problem for us. Merit looks promising.	Apply Award Fire Ant Bait in October and March
Tim Cann, CGCS Harbour Ridge Y&CC	#1 problem pest. Curative treatments during course renovation closings. Initial treatment wall to wall in May and June. Oftanol 2L @ 1 gal/Acre. Follow up til Fall for "hot spots." Orthene (5lbs/Acre) plus Coax (64 oz/Acre.) Not happy with results. A reduction, but not satisfied	Can be severe on steep bunker faces. Curative applications as needed. Sevin (7-10 lbs/Acre) or Orthene (3 lbs/Acre). Good results.	Not a bad problem	Severe. Mounds flagged. Golfers helped. Spot treat with Amdro Bait. Some success. Last fall blanket treatment with Award. Better control. Fewer mounds
Darren Davis, CGCS Olde Florida GC	Individual burrows injected with Triumph on greens, tees and approaches and on fairways with Dursban Pro. Preventive only. If adult activity in an area becomes excessive, a soap flush is done for nymphs. Over the top application of Dursban Pro watered in. Record these areas in IPM file.	Sod web worms. Spot treat. Orthene or Dursban. Preventive only.	None	Preventive only. Treat individual mounds w/Triumph. Apply Award around clubhouse.
Wayne Kappauf, CGCS Island CC	Soap flushes to indicate nymph activity. Early May. Wall to wall apply either Oftanol, Talstar, Poly-coated Dursban. Mid-summer. Orthene on "hot spots." Late summer & early fall. Apply .5% Dursban bait as needed. Late winter. Apply parasitic nematodes.	At first sign of infestation, greens & tees spray Talstar, Orthene, Dursban 50W or Pageant. Fairways and roughs are treated only if damage exceeds acceptable levels.	Most grubs are controlled with the mole cricket treatments	Award applied spring & fall at 2.5 lbs/Acre.
Mike Mongoven, CGCS Ft. Myers CC/Eastwood	I have used Oftanol sparged on fertilizer in even-numbered years. We will be applying this material in May. We have used other granular materials: Mocap, Turcam, Crusade in fairways. For hot spots we use Orthene TTO or Orthene TTO with Gamma-Mean.	Our biggest problem is all army worms. We treat only greens and bunker faces. We use Orthene TTO, Dursban 50W and Proxol 80.	No success treating grubs. I hope to get some ideas from this article.	Our control has improved by using Award. We apply 2 lbs/Acre in April and Sept. Applied to dry grass. Irrigation limited for 2 days.
Joe Ondo, CGCS Winter Pines GC	Early spring - spot treat adult activity with Orthene or Talstar. Aerify greens, tees, fairways and roughs before full moon in June. Then apply fertilizer with Oftanol to greens. Alternate Orthene and bait during summer and fall on "hot spots." Spot treat Mocap on new hatches where needed.	The Oftanol treatment controls the worms till the rainy season. Then greens and tees are treated as needed with Orthene, Dursban, or Scott's Turplex. A preventive application may be applied before a tournament during peak insect activity. We have also applied Turcam for worm control	Oftanol controls most of them. Last year some fairways and slopes aerified & granular Sevin applied. We have used Turcam if going after a wide variety of insects in an area.	Not a big problem for us. Landscape person spot treats with Orthene at label rate as he goes around during the day.
Mark Richard, CGCS Ft Walton Beach GC	1995 was quite severe. Usually treat curative. The mainstay of treatment has been Orthene at label rate with .5 lb of Sevin per 200 gal. tank. Results good. Only 2-3 weeks. Triumph has worked well on greens at label rates. Turcam & Talstar granular was used on fairways at label rates. Control fair to poor. Mocap is used on small hot spots. Good results.	Not much of a problem recently. Curative treatments Orthene or Proxol as needed. So much effort goes into mole crickets that worms didn't seem to be a problem anymore.	Have never treated for grubs	Moderate infestation. Treat with Drione insecticide as needed. Results positive.

Table 2 - Topdressing Programs

Name	Planning	Top Dressing Material	Frequency and Rate	Equipment	Benefits
Buck Buckner, CGCS Isleworth CC Orlando	A tentative schedule is made up a year in advance. Updates mostly via meetings with Head Pro. Golfers informed through newsletter and postings in Pro Shop or on Carts	Florida Potting Soil Mix No. 4	Warm Season - every 3 weeks if possible. If we verticut at the same time, we will use a moderate amount of sand. If not, then a light amount. Following aerification, a heavy amount of sand to be sure the holes are filled. Drag with Steel mat. Cool Season - once the overseed is established every 3-4 weeks. This year we only top dressed once in January. If it's too cold, the sand just seems to sit there and aggravates everyone.	Toro - used for medium to heavy topdressings. Vicon for very light topdressings. Steel drag mat. 3.5x6.5 feet. Brushes - usually used for light topdressings but really isn't any better than the steel mat.	Reduces the grain effect. Smooths the putting surface
Tim Cann, CGCS Harbour Ridge Y&CC Ft. Pierce	Pro, Manager and Green Chairman are all involved. Always searching for a better method (time). Pro Shop is responsible for communication of the project.	Straight sand - PM200	Every 2 weeks on Thursdays between 11 a.m. and 3 p.m. The Pro Shop provides a 1-hour gap from 11 a.m to noon. We follow the 11 a.m. foursome the entire round until complete.	Light applications - Terra Topper Wide open. Cushman vehicle - 1st gear, high range. Heavy applications - Cushman topdresser. MeterMatic ground drive also used. Turfline rollers on triplex used to smooth any disruptions to surface	Later morning applications brush in easliy. Past experience - only morning top dressing caused sand balls and stuck flags in cups. Smoother greens resulted from new method.
Darren Davis, CGCS Olde Florida GC Naples	Topdressing based on turf/thatch conditions and climatic conditions. Golfers are always given the utmost respect.	Greens - Standard Sand's "Ideal Topdressing." Tees & Fairways - DOT from GASH	Greens - every 2 weeks. Light. Tees - every 2-3 weeks. Moderate. Never bury them.	Greens - Terra Topper. Tees & Approaches - Toro Workman & 2300 pull behind. Fairways - outside contractor 2 times a year. Greens - drag with hand brooms after light applications. Terra Broom after aerification's heavy applications. Tees & fairways - Sisis 2 brush	
Kevin Downing, CGCS Willoughby CC Stuart	Notify Pro Shop and members on first tee seven days in advance.	85/15 mix with Canadian Peat. Charcoal sand 3 times in winter.	Nine times per year. 1/8 setting. Done in the afternoon	Vicon - light 7 times per year. MeterMatic - heavy 2 times per year. Drag brush. Push brooms. Levelor drag mat in summer.	Smoother surfaces. Greens speeds 8.75-9.0. Not sure of going to 14 times per year because of disruption to play.
Wayne Kappauf, CGCS Island CC Marco Island	We try to stay on a schedule and inform Pro Shop a week in advance. We adjust for key tournaments. We also warn our mechanics so they can adjust their backlapping schedules	GASH's 85/15 with Canadian Peat	Summer every 3 weeks spaced around aerification. Winter every 4 weeks. 2 weeks prior to big events. Any time after aerification. Very light in winter. Approx 2.8 cu ft/1000 sq ft. Moderate in summer, approx 6 cu ft/1000 sq ft.	Terra Topper for light applications. Toro (belt drive) after aerifications. No dragging required for winter light applications. Drag mat in summer for lighter applications. Drag brush after heavy applications.	Greens are consistently smoother and quicker.
Mike Mongoven, CGCS Ft Myers CC/Eastwood Fort Myers	We advise the golf pros at each course when we plan to topdress. We vary the day of the week so we won't upset golfers that only play certain days.	Straight sand FM 200. In winter we add 4 pounds of charcoal to the FM200	Biweekly starting at 5:30 a.m. behind the mowers. This allows us to finish ahead of the golfers. We share equipment between the courses.	Because we topdress when the turf is wet, we apply light amounts of sand with a Terra Topper and drag it in with a carpet. After aerifications and for the tee tops we use a Turfco Topdresser to apply heavier amounts of sand. If we topdress when it's dry (rarely), we drag with a brush.	Greatest benefits are improved smoothness and enhancing the turf's ability to cover an open area. We have not overseeded the last two years. The charcoal sand has helped the Tidwarf retain its green color.
Mark Richard, CGCS Ft Walton Beach GC For Walton Beach	Aerification topdressing is scheduled in the fall for the following year and is communicated to the Men's and Ladies' associations and posted for the public 7-10 days in advance.	USGA Spec sand	3 times per year after aerification to fill holes. Every 2 weeks in the growing season to reduce thatch and smooth the greens. Heavy rates = approx 1 cu yd per 1000 sq ft to a light dusting every 2 weeks.	Turfco MeterMatic III for all applications. Sand is brushed with Standard's drag brush and watered in.	Smoother greens. Less thatch - less disease.
Rick Tatum, CGCS The Forest CC Fort Myers	Summer topdressing on closed Mondays. Winter more difficult. Block tee times 1 hour starting around noon. Topdress & brush. No interruptions. Also apply amendments or fertilizers at this time. Never had a complaint from players playing behind our topdressing program.	1-220 sand	Frequent light applications. Alternate between the Bear & Bobcat courses every week. This program is followed year round except after aerification.	John Deere 955 tractor Speed 1.5 mph. Vicon set wide open. Brush one time over entire green. 10 minute syringe. Support - Ford tractor and Rayside trailer to haul sand. ClubCar with Jacobsen Drag Brush	Consistent, healthy putting surfaces.

ICP equals IPM

BY MATT TAYLOR

*Assistant Golf Course Manager
Collier's Reserve Country Club*

The foundation of our Insect Control Program at Collier's Reserve is an aggressive Integrated Plant Management (IPM) Program. By maintaining a strong, healthy, dense turf, you can more easily overcome minor insect, disease and weed pressures.

Our cultural practices for promoting a healthy turf include verticutting, aerifying, topdressing and mowing with sharp, well-adjusted reels, as well as utilizing a computerized irrigation system that delivers proper amounts of water based on evapotranspiration rates.

However, even doing all the right things to keep a healthy turf does not guarantee that you will not have some turf areas susceptible to insects.

Mole Cricket Control Program

In our area, mole cricket control must begin in February and March before overwintering adults begin to mate. We apply beneficial nematodes on problem areas to knock down the mole cricket population.

The nematodes are applied at dusk or during the dark to pre-watered turf (pre-watering cools the turf) with a flood jet nozzle at 50 gallons of water per acre. After the nematodes are applied we water again to ensure they get into the soil.

The application of beneficial nematodes has worked well but does not guarantee 100 percent control of the mole cricket. In May we begin soap flushes, which allows us to monitor the nymph hatch.

With evidence of the nymph hatch, we begin applying conventional insecticides at the lightest rate indicated for mole crickets.

In 1995 we tried Merit on 4 acres of turf at the very onset of the nymph hatch.

Our results were excellent, and we will be using it again this year. Also, we will continue to treat for adult mole crickets that were missed as nymphs throughout the summer using a variety of products.

In the past, we have used Crusade 5 G, Talstar Flowable and Orthene with good results on the nymphs and smaller crickets. We also apply mole cricket bait to the turf during the late summer and early fall to actively feeding crickets. Applications are made late in the day or on nights with a full moon and no irrigation scheduled.

Another program we have for mole crickets is to treat individual mounds with a one-gallon B&G sprayer fitted with a 12-inch brass tube which allows us to inject Lemon Joy and water directly into the mole cricket tunnel.

We usually assign our golf course setup person this task. Greens are treated when cups are cut, tees when tee markers are moved, and fairways as they are checked and cleaned of debris. You must take care to keep the soap mixture off the turf surfaces to avoid burning the turf.

A polycoated Dursban is also used when there is increased pressure from young mole crickets on greens, collars and approaches. When the mole crickets reach the third to fourth instar, we once again apply the beneficial nematodes,

following the same application methods used in the early spring.

White Grub Control Program

We have been fortunate that white grubs have not been a severe problem here. Problem areas are treated as needed. Those turf areas that resemble grub damage are checked by removing a piece of sod with a flat shovel and visually inspecting the root zone for grubs. In May and June, areas with evidence of grub activity have been treated with Turcam 2.5 G at the labeled rate and then watered in.

Fire Ant Control Program

Fire ants are one of our most serious insect pest problems. Not only do they inflict painful stings to golfers and the maintenance crew, but they are extremely damaging to turf as they build their mounds. In out-of-play areas their mounds cause damage to plant material as they build around the stems.

We treat wall-to-wall with Award once in the spring and again 4-6 months later if needed. Using a Hurd spreader mounted on a Cushman Truckster, we apply at 1 pound of material per acre. Application is done late in the afternoon when the ant population is more active,

However, even doing all the right things to keep a healthy turf does not guarantee that you will not have some turf areas susceptible to insects.

and when no rain is forecast. The irrigation will be turned off that night. Water tends to reduce Award's efficacy.

In addition to the broadcast method of Award, the course setup person, the IPM Specialist and myself will treat specific areas that are likely to cause problems for golfers and crew (i.e., green slopes, tees, etc.) with Orthene or Award. Also, out-of-play mounds that need specific attention are treated with Award sprinkled around the mound.

Worm Control Program

Sodweb worms, army and cutworms are treated preventively and curatively as needed. Areas such as trap faces and shadowboxes on fairways that have higher cuts of grass make it easier for larvae to go undetected until after damage has occurred.

For this reason, during the summer months we will treat with Vector TL as a preventive control. When conditions are right for worm activity on greens and tees

(i.e., cloudy days with rainfall) we will apply preventive treatments of M.V.P., which is a microencapsulated form of *Bacillus thuringiensis*.

This product has given us a 4-7 day control for sodweb worms as opposed to regular Dipel, which is 1-2 days at best. Greens are closely monitored during spring, summer and fall months. If treatment is needed, it is usually Dipel and a light rate of Orthene or Astro. Astro, a pyrethroid, has provided us excellent quick knockdown of worms.

Summary

A good IPM program, as the foundation to the insect control program, will ensure that you will remain in control of your turf insect problems and also control disease and weeds.

Nothing will substitute for developing and maintaining good cultural practices, keeping in mind that sound cultural practices and a good insect control program can mean dollar savings to you in the overall maintenance of your golf course for both time and material.

Turf Trivia

Oxygen Generation

Plants, including turfgrass release significant amounts of oxygen into the air. A turf area 50 feet x 50 feet produces enough oxygen to meet the needs of a family of four [Huffine and Grau 1969]. An acre of turf would support 174 people, and a 100 acre golf course would provide enough oxygen for 17,400 people.



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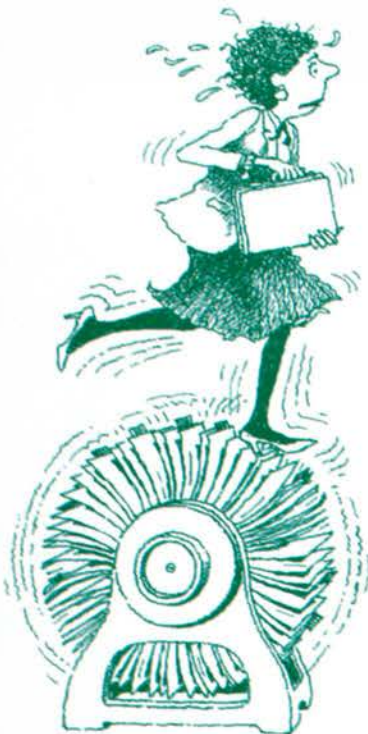
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"Servicing South Florida"

A Primer for a comprehensive golf course maintenance environmental health and safety program

BY FRANK J. MEEKER, CEP.



Okay, so Washington is looking over the General Duty Clause (section 5A.1 of the OSHA Act) and Republicans in the House of representatives are looking at curbing excessive regulation on businesses.

You, the golf course superintendent or golf course owner can breathe a sigh of relief, right?

Well, folks, the General Duty Clause yielded over \$3.5 million for the federal coffers as of September 1994 alone. During the same period of time for programs as simple as Lockout/Tagout-Training and Communication, OSHA levied almost \$8.8 million in fines. Hazard Communication Program violations gathered in another \$8.4 million and continues to be one of the standards most frequently cited as being violated.

Do you really think OSHA is going to back off of these cash cow areas without a fight? I don't, and if history is any teacher, you shouldn't either.

So what kind of program do you really need in order to have some hope of convincing these folks that you are trying to do your best? Generally, the best approach has been found to be a combination of systems which rely on training, auditing, communication, and investigation of and reporting actions within established programs. Let's look at a few examples of how this could work.

Program Audits

The first thing to do is determine what programs you already have in place. A Program Audit (PA) takes a look at your existing operations and determines to what degree they follow established and applicable regulatory areas. Certainly the PA would look at your OSHA record keeping, accident reports, medical records and the like.

The PA would also review past audits, if any exist, and previous inspections and/or enforcement actions to decide if issues identified in the past have been addressed. Next, a comprehensive review of any training and communication programs would be done. Specifically, we would be looking for the following written programs:

- 1) a respiratory program,
- 2) a HAZCOM (hazards communication) program,
- 3) an emergency action plan (contingency for dealing with CERCLA and/or RCRA issues),
- 4) an emergency response plan,
- 5) a pesticide storage/handling/inventory program,
- 6) an above/below ground storage tanks inspection/reconciliation program,
- 7) a SARA Title III reporting program,
- 8) a hearing conservation program,
- 9) a MSDS collection and employee information distribution program, and
- 10) a verified waste-management program (with recycling being a key element).

Other programs to consider for this action step would include your fire safety program, an equipment inspection program for cranes, lifts, hoists, and even what emergency equipment is available and how/where it is stored.

But lastly, and probably the only protection you have during an inspection, is a review of your documentation. You need to document your training, your programs, your inspections, your pesticide inventory, and practically everything else. And the impacts of regulation go far beyond just complying to OSHA regulations. Just look at today's tanks program.

Above/below ground tanks have become a favorite target for regulators recently as more of the inspection responsibilities for the program are passed from state (in our case, the Florida Department of Environmental Protection) down to the counties or local municipalities.

Key areas being hit? Documentation is the big one. They want to see documentation of the visual inspections prov

The agencies want to see that you are reconciling the tank volume every day product is added or removed and that things balance out from week to week.

ing that you are covering required areas.

Which area? Certainly monitor wells, bailers and pumps visual inspections for underground storage tanks are important. Secondary containment and firesuppression inspections for aboveground storage tanks are the others.

The other important paper trail under the tanks program is the documentation for product reconciliation. The agencies want to see that you are reconciling the tank volume every day product is added or removed and that things balance out from week to week.

This information needs to held for three years for each tank before it can be discarded. We have used computer programs to simplify this process, collecting

only a meter and stick reading in the morning of day one and using the opening meter reading from day two as the closing meter reading for day one. The computer calculates everything else.

There are also areas in the program to include deliveries of product, listings of carriers, warning of overage or shortages, and sign off areas from visual inspections.

As a side note, not everyone recognizes that the tanks program includes pesticides, ammonia, and blends, mixtures or byproducts of oil or gas (like used oil tanks) for this program.

This usually does not include fertigation tanks depending upon what is in them. We have had the agencies try to

impose regulation of aboveground fertigation tanks which only contained trace minor nutrients under this program. The Tallahassee office of the FDEP later, thankfully, confirmed this was not the intent of the tanks program. Look things over and, if you're not sure, ask for some advice.

It is paramount to understand that a program like Lockout/Tagout and HAZCOM have documentation requirements as well. A written program, and documentation as to how that program is run, is the type of verification agencies are looking for when deciding compliance. Without documentation, you too can join the few and the proud who have been levied with fines for noncompliance.



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Facility Audits

At the same time the Program Audit is under way, it is time to update, or at least start, a Facility Audit (FA).

A FA starts with a good map showing the layout of the facility, location of any aboveground or belowground storage tanks, pesticide storage areas, electrical outlets, fire safety stations, eye wash stations, load/mix areas, ventilators, waste storage areas and equipment storage areas.

We believe it is a good idea to identify any land forms of significance as well, including ditches, stormwater ponds, wetlands or critical wildlife habitat areas. It includes walk arounds and inspection of personal protective equipment (PPE), a review for unsafe conditions, looking especially for anything that could cause accidents.

We have found that employee participation in this part of the program is good for the employee and the employer. It

never hurts to have a fresh set of eyes looking from a different perspective, and it becomes another means of training the employee in the program. Rotate the employees from inspection to inspection and document your review. Both the golf course superintendent and employee should sign the inspection report and file the inspection right away for future availability.

Unsafe Activities Reports

An often overlooked area in the documentation chain is a review of unsafe activities by employees. Problems with an employee not wearing PPE or failing to follow the Lockout/Tag should first be corrected, then noted in the employee's file.

Other items for consideration would include using the wrong tool for the job, driving around the course at unsafe speeds, failing to secure equipment, removal of protective guards, using unsafe job procedures, or generally trying to

bypass the safety program.

We know it seems like tattling, distrust or overkill, but a lack of documentation of these events leaves the employer open when the inevitable lawsuit happens where, through the employee's own bad habits, he or she is injured on the job.

On the other hand, a trail of documented problems with a particular employee, signed by the employee, can show a clear pattern of disregard for the safety program. This could possibly limit some liability to the owner or superintendent during the worker's compensation claim or other suit.

Further, documentation of these activities, plus discussion with the employee after each occurrence, establishes a clear pattern of action taken by the employer. When brought into court. This clearly shows an effective and active safety program which has been working to try and correct the individual's poor work habits and keep the workplace safe for the employee.



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As a subunit of the Unsafe Activities Report, unsafe conditions should be addressed, too. This would include a review of machine guarding (\$2.9 million in fines), electrical grounding or wiring problems (another \$2.7 million in fines), and a host of other issues such as fire/explosive hazards, food in the workplace, defective tools, improper stacking, ventilation, welding, etc.

Final Tips

1) If you don't have a complete list of MSDSs which reflect not only your pesticide inventory, but virtually every other chemical found in the workplace, now is the time to get one.

2) If you haven't started reducing the amount of chemicals stored onsite at any one time, now is the time to do it. You don't want to end up reporting chemicals under SARA Title III and have your name broadcast across the country and your local community just because you couldn't plan ahead. Many of the chemi-

icals are now tracked fairly closely by the government, and you don't want to get caught never having reported these chemicals to the feds, the state (in Florida, the Regional Planning Councils) or the local fire department.

3) If you are not documenting your training and program, you are opening yourself up to, at the very least, some very expensive worker's compensation issues.

4) If you haven't prepared written programs for the types of programs discussed above, you had better sit down and do some. We have yet to see a facility fined that was able to produce documentation that they were trying to do their best with a series of very complicated regulations except under extraordinary circumstances.

5) Speaking of worker's compensation, if you don't review the files and follow up with the doctor and employee, you risk losing considerable amounts of money when your employee takes you to

court. We know one company that saved well over \$500,000 this year just by looking over the files and noticing that something just didn't seem right.

6) We haven't talked about it here, but OSHA now requires employers to not only provide and maintain PPE, but also assess the potential hazards associated with their particular job around the workplace in general. Further, you must train the employees on the proper use of the equipment, and its hazards and limitations. The program must be written and certified.

7) If your training program doesn't include signatures of all attendees and some kind of proficiency test when it is done, you are asking for trouble.

8) To simplify your chemical training, go ahead and break the chemicals down into use categories such as corrosives, flammables, solvents, etc. You may need as many as 10 to 15 categories, or as few as five or six.

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I have 10 years' experience as a superintendent and two years' experience as an equipment sales rep. The purpose of this article is to relate some of my experiences as a sales rep in hopes that this will increase understanding among the two

groups. Following are a number of the questions most commonly asked of me while I called on the hundreds of golf courses in southeast Florida.

"Do you miss being a golf course superintendent and, if so, what do you miss about it?"

I always thought the implication of this question was that I had left the industry. I never felt like I had left the golf course maintenance industry, although there were those who were disappointed to lose me as an "A" member.

The answer to the question was yes, even though at the time I had no intention of going back. Interaction with the crew was what I missed most. Training and educating are primary objectives of the superintendent's position, and I very much enjoyed that part of the job.

"How does it feel to not have all the pressure?"

When I was asked this I thought to myself, "What are you talking about?"

There is a tremendous amount of pressure in sales. It is amazing to me how the professional sales reps are so good at masking the effects of this pressure.

Superintendents and other decision makers do not see it and this is truly a tribute to how well these sales reps manage their own stress. Salespeople are expected to micro-manage their time to the minute but always come across as if you are the only customer on the planet.

Salespeople must produce sales every day. They can never allow themselves to be down or tell their customer what they really think about their decision to purchase a tractor for \$300 less from a dealer who could not care less about the golf industry!

In addition, you must address any problem situation that may occur while you are making sales. I was responsible for seeing to it that a very considerable percentage of the golf courses in south Florida were being mowed on a daily basis.

There is pressure from the principals in the distributorship, from the superintendents, the mechanics, the manufacturer's reps, and that guy who cut you off in traffic. Is there no pressure in sales?

Consider the following sales formula:

Production minus Sales = Scrap

"What can you do to help me do a better job?"

The salespeople who call on you are really your employees. They should be viewed as another resource who supports your efforts just like any other member of your crew.

Would you ask your assistant what he or she could do to help you do your job better?

I think a better question would be, "What can I do to help you do a better job?" I have some thoughts on this.

- 1) Be honest with your salespeople. Telling someone that you do not intend to do business with them this time is not pleasant. But tell them, tell them why, and tell them in a timely manner.
- 2) Give your salespeople good information. It is their job to find out what you are buying and when you are buying it. They also need to know what products you favor and why and if there is anything about these products you would like to see improved. This information will allow your salespeople to present the products that best fit your application. Sometimes getting this information is like pulling teeth. I am not sure what negative consequences could occur by

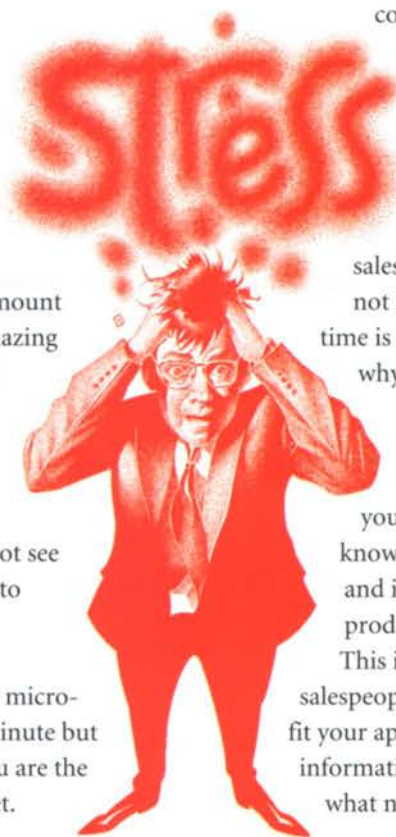
Do you miss being a superintendent?

Notes from a superintendent turned salesrep turned superintendent

Superintendent's Journal



Scott Wahlin, CGCS Longboat Key Club



providing this information; I cannot think of any.

3) Do not abuse demonstration equipment or demonstration policies. All of the manufacturers make excellent equipment. How long should it really take to determine whether a piece of equipment is best suited for your application?

Take as long as you need, but do not run up a lot of unnecessary hours or abuse the equipment. Internal damage resulting from misuse may not be apparent to the dealer or the future purchaser — a fellow superintendent.

4) I would like to make a note here regarding good sales tactics versus poor ones. When I called on a superintendent, I had three areas I wanted to discuss — my commitment to the industry, my company's commitment, and my products.

I never wanted to take valuable time to discuss shortfalls in my competition.

Every sales rep can do a very effective job of disparaging the competition. Chances are they know their competition as well as the people working there. Sales reps who resort to this should be viewed as weak and not worthy of your business.

5) I used to receive a newsletter that was published by one of the other manufacturers. There was an article in one of these that stated, "All things being equal, people will still do business with their friends."

The next time you think you are having your time wasted by a sales rep making small talk, consider this statement. It is the sales rep's job to maximize sales. If making friendships among clients will accomplish this, then that is what must be done.

If we all make sure we are basing our purchasing decisions on value and what is best for our clubs, and not personal relationships, both sales reps and

superintendents could use their time more wisely.

"You should sell your equipment for cost because you make so much money on parts."

This is the capitalist free market system of American we're talking about here. If there was so much money to be made distributing golf course equipment, investors would be tripping over each other to get into the business. Certainly there is a profit to be made, but it is an honest profit.

No one is getting rich overnight doing this.

There is a minimum amount of profit that must be made in order to justify the risks associated with doing business. It is my impression that most distributorships operate very close to this minimum profit margin.

It is also my impression that if the profit margin was to fall below this minimum, the owners would be better

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“How difficult was it to make the transition from superintendent to sales?”

There are many similarities between these two positions.

Most superintendents are excellent salespeople and they do not know it. How do you get projects and budgets approved? You sell them to the decision makers.

How did you get your position in the first place? You sold yourself and what you had to offer.

I believe in order to be a good superintendent you must have all the attributes and skills necessary to be a good salesperson. Preparation for budget presentations and sales proposal presentations are practically the same.

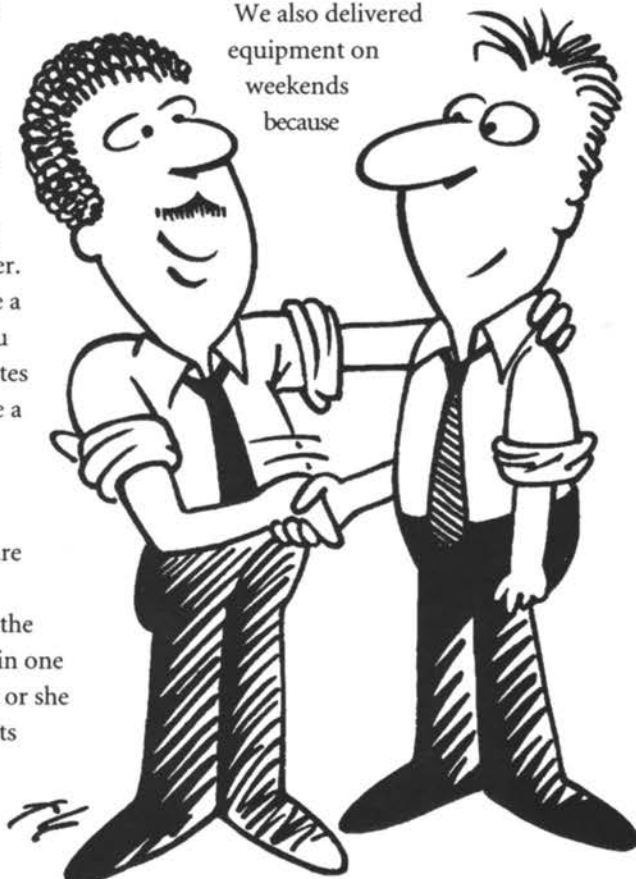
One difference is that the salesperson is an expert in one facet of the industry. He or she can focus on the products they sell and the competition’s as well. The superintendent

must manage all of the different facets and cannot focus too long on any one area.

“What’s it like to take weekends off?”

There are many salespeople who work weekends. We did many demonstrations on weekends because it was the only time we could free up the piece of equipment and the superintendent was agreeable.

We also delivered equipment on weekends because



“I believe in order to be a good superintendent you must have all the attributes and skills necessary to be a good salesperson.”

the superintendents were desperate to receive it. In addition, as I mentioned earlier, salespeople must micro-manage their time.

If decision makers are at work, the sales rep needs to be out calling on them. Weekends and evenings are the only time most salespeople can do planning and other paperwork, and there is much of that.

I like to tell my assistants that they cannot know what it is like to be a superintendent until they have held the position. Those who went on to accept head jobs later agreed.

I feel the same is true for sales

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positions. I believe most superintendents feel they have some idea of what it must be like to be in sales. I do not believe they do.

I believe salespeople work much longer and harder than most superintendents realize. I found the people in the sales arena to be highly



trained, devoted professionals. It is a position that keeps you up at night, considering how you might best serve

the customer and thus get an edge on your competition.

I found that the best superintendents treated their salespeople like professionals, and this is the way it should be.

Author's Note: Yes, I'm a superintendent again. I enjoyed the sales

position I had very much. But, like any new opportunity that comes along there are risks and rewards.

This one wasn't meant to be. The Wahlin family is now settled in to a new location on the West Coast. Longboat Key.

By the way, sales reps are welcome!

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Then and Now

By Pat Kriksceonaitis, GCS,
Essex Country Club

As I sit at my desk and tally the year-end totals for water fertilizer, plant protectants, and man-hours, it's hard to believe how different the maintenance program is from just five years ago. Members' expectations have increased. The amount of play has increased. Being on the town's aquifer means limitations on water, fertilizers and plant protectants. What have I gotten myself into?

Back in the stone ages, if the greens were hungry, they got fed. If the tees were hungry, they also got fed. Now only 50 to 60 percent of the fertilizer applications are on a blanket application basis.

The rest of the time only high-wear areas and specific areas in need of more growth are fed. The large, sunny, well-drained greens and tees don't get nearly as much food as the smaller beat-up ones.

To compensate for the increased traffic, it would be nice to increase the aeration. However, the players who are

increasing this play would go ballistic if the playing surface was disrupted more often. So now we spike the greens instead of mid-season aerating.

Depending on the season, some aeration is done, but it's solid tines instead of hollow. The whole green or collar isn't done. Once again, it's the high-traffic areas where the play gets congested on a green or tee or fairway. The majority of the playing surface isn't disrupted.

Even with the turf being managed more closely these days, the need for plant pesticides is as important as ever. Gone are the days when if it was Thursday, the spray rig must be applying something.

The frequency and amount of pesticides have been greatly reduced. While most of the fungicide applications done on greens and tees are on an area-wide basis, there are several weeks or months between treatments with only some follow-up to the severely shaded or stressed areas.

Insecticides have almost disappeared from the routine program. In 1995, no treatment for cutworms was necessary, and only three acres of turf were treated for beetle grubs (and two acres were tennis courts).

How is this possible?

By knowing the property, mapping hot spots and monitoring for the

different pests, a lot less active ingredient needs to be used on an annual basis.

So what does this all mean to the maintenance program? The annual amounts of fertilizer and plant protectants are greatly reduced. The amount of man hours needed for monitoring and spot treatment is greatly increased.

The need for more year-round personnel who are conscientious and reliable is greater than ever. The more we limit the artificial life support systems, the more efficient and accurate we have to become in their usage.

Can the playing surface be what our members expect? It's possible, but not without greatly increasing the human monitoring and management of them.

From Turf Talk — A publication of the New Hampshire Golf Course Superintendents Association

The Word "Green" in Golf

A good deal of confusion surrounds the use of the word "green" in proper golf terminology. Should one use "green fee" or "greens fee?" Is it a "greenkeeper" or a "greenskeeper?" Exactly what area does the word "green" pertain to on a golf course? And is it the "USGA Green Section" or the "USGA Greens Section?"

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Green is a noun and has two proper golf meanings. The first meaning is chiefly of Scottish origin. It simply defines all territory of a golf course, or all areas outside the confines of the clubhouse.

Thus, it can be used in relation to all outdoor areas of a golf course. The second meaning, most readily known to modern audiences, means the area of short grass surrounding a hole.

This area is generally mown and rolled to the smoothest possible texture. In keeping with the first meaning, a greenkeeper is someone whose responsibilities entail maintaining all areas of the golf course outside the clubhouse. The term was changed to golf course superintendent in the United States several decades ago.

In almost all cases of using the word green in golf terminology, the use should be singular. Green fee, greenkeeper, green committee, and USGA Green Section are all correct uses.

One final word on this subject. Green, in proper golf terminology, does not refer to any particular color found on a golf course. It only applies to areas or regions of a golf course.

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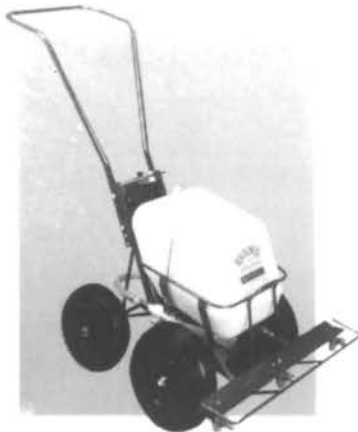
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Can We Talk?

Is Productive Communication Possible at Your Club?

I was touring a golf course recently with a fellow superintendent and was overwhelmed by how perfect his grounds were.

The fairways were tight and weed-free, greens were uniform — even the rough was consistent. Then a funny thing happened. A group of members stopped to give him their comments on the conditioning:

“Hey, did you f- up the 12th hole yet?” “What the hell are you doing on number seven?” “These fairways are horrible; I can’t hit my three-wood off them.”

These are actual quotes from respectable members of a prestigious club. Four or five more groups approached us on our tour, and not one had a positive comment. There wasn’t a single, “Hello! Good afternoon.” It may not be this bad at all clubs, but a pervasively negative tone seems to be prevalent at many clubs today. What’s going on?

In the last few years, it appears that the playing surfaces at our club have gotten better and the appreciation of a job well done has diminished. Has this raised the stress level of you and your turf?

Has the recent rash of job openings in the region made you more-or-less secure in your job position? I’m getting a stress headache just thinking about it. The stress on the average golf course superintendent is greater now than ever, and it’s not going to subside in the near future.

Why is that? Have we promised our

members more every year so that it’s difficult to live up to expectations? Has TV golf conditioned our members to expect indoor arena conditions every day regardless of the weather, amount of play or budgets? How about our members’ personal lives? Have they become so negative from all the downsizing in business and the uncertainty of their immediate future?

I think the answer is “yes” to all three questions. I think one problem many of us have is promising the moon, even when we know our booster rocket is short on fuel. During the good years, Mother Nature may help us reach our destination safely, but during the bad years, even with the 14-hour work days and the miracle cures for diseases, the finished product just doesn’t meet expectations.

Often the amount of play is too much, the window of opportunity to do “meaningful” work is small, and the cultural practices, so needed to maintain fine turf, are frowned upon by committee members.

And beyond all that, the cost of producing a hundred acres of immaculate turf is usually more than our clubs’ budgets can handle. Then our members go home and watch a perfect golf course host the best players in the world. What do they think during the commercials?

“Time for a cold one?” Well, maybe, but more likely it’s “I hit a putt just like that today and my ball didn’t come close to the hole! Our greens are horrible.”

Television, which during the 60s was responsible for the upgrading and increased popularity of the game, has gone beyond that and dissects every aspect of the playing surface and the player’s golf swing.

It is no longer a game played on unique and different golf courses, which offer a multitude of diverse

conditions. There are now written and unwritten uniformity standards which the announcers live by in the commentary of the action.

On TV, golf greens must all putt the same. It doesn’t matter if one green is surrounded by trees and built on clay, and the next green is open and built of sand. Uniformity rules and “knowing the greens” doesn’t enter the commentary. Funny thing is that the turf management professionals have gotten so good that uniformity is usually achieved.

Television has increased our paychecks and decreased our job security. The average member, even at wealthier clubs, has seen his or her standard of living remain stagnant, or even decrease, in the last 10 years.

The profit margins are squeezed ever tighter. Downsizing has been the operative word since the mid-80s in most larger corporations. Most people’s personal budgets aren’t so large that they can spend lavishly on nonessential items. Golf and club life may be essential to one’s mental health, but it usually falls after the house, car and schooling for the children.

How about the chaotic world around us? Just turn on the six o’clock news. Many of us have become desensitized to the killing and corruption broadcast on the evening news.

But it does affect the psyche.

After a tough week at work worrying about the acme balloon account not producing as expected, and hearing rumors of a layoff because of a poor quarter, and hearing from your wife that the car has just died, and your kid is taking a field trip into the city (right where a killing occurred last week), Joe Member is going to play a round of golf at the club.

On the first tee he has high blood pressure, only two hours to play because he has to get home, and no

practice since his last round. How is he ever going to shoot a good number? How is he doing to complete his round calmly and full of praise for a job well done?

The job at hand isn't as simple as showing up for work and getting maximum efficiency out of the staff and yourself. That doesn't work at many clubs. We have to do more — not with our hands, but with our leadership, in several areas.

First, we need to put the "game" back into golf. How do we do this? Every club will be different. Maybe talk with the pro or the club president or the golf chairman — whomever you have a good rapport with.

Get the conversation around to recognizing any problems that may exist. Then you can take it in any positive direction you want. It will take

many discussions before any tangible results are made.

Second, get the club to write a mission statement. If the club can express in writing what it wants and stands for, then it will be easier for you to communicate what needs to be done to achieve those goals.

With a mission statement, you can go to any of the golfing industry consultants (USGA, NGF, state agronomist, fellow superintendents) and get supporting documentation on what is needed to do the job.

Third, communicate to your golfers that when they play golf they should leave the negative trappings in the parking lot. This is a great game, and it is being hurt by people taking the sport out of it.

We cannot change the way society puts pressure on all of us. We can, by

using a little imagination and foresight, change the way our members view us and our golf courses.

We need to convince them that our few acres of turf are there for their enjoyment. Anything less, and they're not getting their money's worth. So during these winter months, think of a positive way to put a spin on what you do for your club and what your club does for its members.

Our jobs and our mental health will only be made better with a little positive communication.

From: Turf Talk, New Hampshire GCSA

Credit: Hole Notes, October 1995

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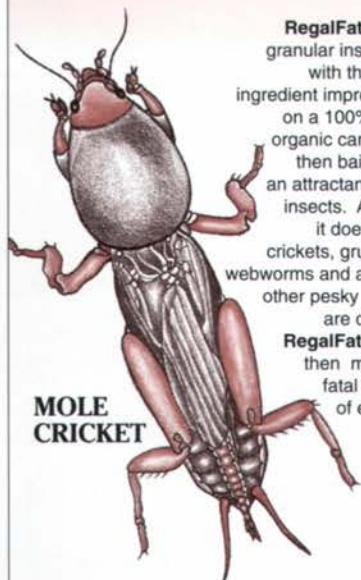
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Letters..

...to the Editor

Dear Joel:

To your "Green Side Up" column, Winter '96 issue, pg.88, nothing more needs to be said. It is a powerful treatise suitable for framing for review by members, players and the staff at every course.

Bravo!

Sincerely yours,

Terry Ward
Sales Manager
Milorganite Division - MMSD
Milwaukee, WI

Dear Terry,

Thank you for those kind words. Thanks also to those superintendents who called or spoke to me in person in Orlando to voice their appreciation for that piece. That one's for all of you!

Joel D. Jackson, CGCS
Editor

Dear Winter Season Golfers:

Throughout a portion of the eastern half of the country, a prolonged period of high daytime and nighttime temperatures during the late summer caused widespread turf loss at a number of northern courses. While hot and humid weather is normally expected during the summer in Florida, record-setting hurricane and tropical storm activity also occurred this year. As a result of the extremely heavy rainfall from June through October, facilities around the state experienced a variety of additional problems. The purpose of this letter is to advise everyone that this summer's weather is having an impact on winter season

course quality and conditioning.

Normal annual rainfall in South Florida averages 58-60 inches. In a lot of areas, this amount of rain was experienced in 3-4 months. During this time, two 100-year and a 25-year rainfall event occurred. In mid-October, a tropical depression hit the lower portion of the east coast and dumped 15-20 inches of rain in a 24-hour period. Total rainfall for the year will be in the 85- to over 100-inch range in many areas. To put this amount of water in perspective, an acre inch of water is 27,154 gallons. Thus, a 120-acre golf course that gets 60 inches of rain has to deal with 195.5 million gallons of water. This is obviously a tremendous amount of water and does not even take into consideration runoff from surrounding areas. With the persistence of a saturated soil and depletion of soil oxygen content, turf growth and development was negatively impacted for several months and, in some instances, turf loss or death was experienced due to flooding.

Further compounding matters was the occurrence of numerous heavily overcast days and a significant reduction in sunlight. The base bermudagrasses of Florida golf courses have an extremely high light requirement for sustained healthy growth. The early fall is a very critical time for storing of carbohydrates and preparing the turf to survive the winter months. As a result of the adverse weather, this was not possible, and thus courses throughout the state are having to go into the primary play season in a weakened condition. The early development of traffic wear problems is being observed at all facilities and is a direct consequence of the weaker condition of the base turf. A full recovery from this situation simply cannot be achieved until this next spring and early summer.

During Turf Advisory Service visits to courses around the state, a collective

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comment from superintendents is that they are six weeks to two months behind in their management programs and practices because of the weather. In particular, it has been very difficult to adhere to pesticide treatment programs for weeds and mole crickets. Here, too, it will be difficult to catch up over the next several months.

I would further point out that while winter overseeding programs will help mask problems, there is an increased potential for difficulties to be experienced in the spring to early summer when the transition back to the bermuda base begins to occur.

While the degree of the effects of this summer's weather has varied among courses around the state, it must be realized and accepted that prior environmental conditions have an impact of all agricultural endeavors. In addition to some understanding, patience and cooperation by the winter season golfers are needed this year.

If the USGA Green Section can be of assistance in any manner, please do not hesitate to contact our office.

Respectfully,

John H. Foy
Director, USGA Green Section
State of Florida Region

Editor's Note: Thanks to John Foy and other Regional Green Section Directors for their support in helping to educate golfers everywhere about the challenges in managing high performance turf. Copy and post this article if you didn't receive and post the original letter that was sent out!

Dear Editor,

This letter is in regards to the Fall 1995 issue of the Florida Green that focused on bunker maintenance in the Hands On section.

I was working my way through the magazine, looking at the pictures and ignoring the "boring editorial at the back of the magazine", when I opened the section on bunker maintenance. This section was of particular importance to me due to the dramatic features that Arthur Hills added to Deer Creek in 1993. Superintendent Mike Hamilton, CGCS, at Grey Oak Country Club described how his crew was able to raise the mowing height of their Flymo's by adding a PVC frame under the mowing deck to raise the deck off of the ground. My assistant equipment technician called Grey Oaks to discuss these modifications. We mounted the PVC pipe onto our mowers and my bunker slopes are the healthiest they've been since they were grown in.

Thank you for putting together an issue that had a significant impact on our operation and the appearance of my bunker slopes. Thanks to Mike Hamilton, CGCS, and Sam

Arcure, Equipment Technician at Grey Oaks CC for their creativity and for sharing the information with other superintendents.

Sincerely,

Robert G. Klitz, CGCS
Deer Creek Golf Club

Dear Bob:

"Boring editorials" aside, Mike Hamilton, CGCS reports he received many calls on this idea. He added that he has modified

the PVC pipe installation using 45° fittings instead of 90's at the corners. He also filled any gaps between the pipe and the deck with epoxy to preserve maximum hover capability. Thanks for writing Bob. Your "ho-hum" letter illustrates perfectly what the Hands On Section tries to provide, a forum for sharing ideas!

Sincerely,

Joel D. Jackson, CGCS
Editor

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Moving up to the next level

Like most former presidents of the Florida GCSA, I've tried to stay active in our industry's affairs but have narrowed my focus to a couple of key issues. As cochairman of FTGA's UF/IFAS Advisory Committee, I've set my sights on doing all I can to help move the University of Florida's turf program forward until it achieves the distinction

of being the premier program in the country.

The fact that I graduated from the University of Florida and have pride in my school has nothing to do with it — I well understand that people in our industry come from all over the country and have no loyalty to UF.

The golf and turf industry, as proven by our recent survey, is the largest agribusiness in the state, and it deserves the support for education and research commensurate with its economic contributions. It makes more sense to direct our efforts toward getting our fair share from the legislature and the University of Florida than it does to reinvent the wheel somewhere else.

If, however, our message falls on deaf ears, I'd be the first to recommend sending our contributions elsewhere.

Walking a daily tightrope of job security, superintendents can't even understand the concept of tenure and

have little patience for what often seems a snail's pace of progress.

There has been much progress in recent years, but it is my contention that the rate must be accelerated considerably for the program to produce what this industry expects and deserves given its size and scope.

This is not a criticism of those currently within UF/IFAS's turf programs but, rather, a call for all of us to readjust our thinking and set our sights on higher goals. We are cheating ourselves, our industry and the people of the great state of Florida if we don't.

We always thought our industry was large and diverse, and since the survey was taken, we now have the statistics to prove it. Let's use this information to secure the proper funding and support of the program that supports Florida's largest agribusiness, and let's all start to think in terms of establishing the best turf program in the United States.

The golf and turf industry, as proven by our recent survey, is the largest agribusiness in the state, and it deserves the support for education and research commensurate with its economic contributions.

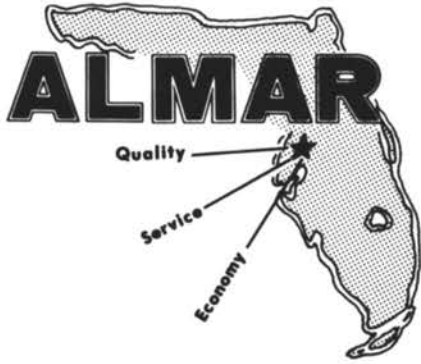
Mark My Words



Mark Jarrell

Mark Jarrell, CGCS
Assistant Editor

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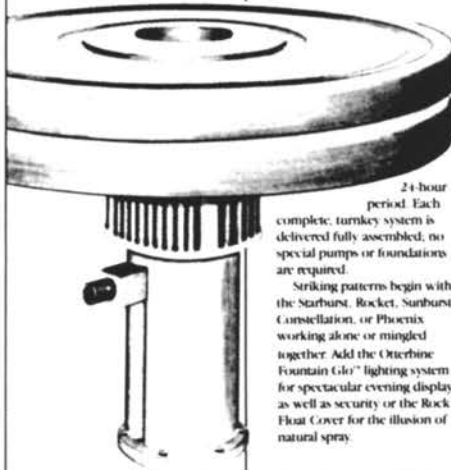
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"The Golf Course Specialists"

Perceptions are hard to change. They live like myths and folklore handed down from generation to generation with

embellishments added along the way. Here are two common ones we hear all the time and one from left field.

Perception #1: The golf course is “always” overwatered.

Reality: What people mean is they came across some “wet areas” on the course. Why do people automatically assume the superintendent is blindly watering without regard to conditions or need? Water Use Permits and restrictions make water too valuable to waste. We know that overwatering causes algae, saturated root zones, compaction and complaints. Why would we do that on purpose?

So why are there “wet spots?” Leaking pipes and fittings. Trash in a valve. Diaphragm failure in a valve. Leaking control tubes. Booster pump failure. Human error in setting up run time. Late night/early morning rain after regular cycle ran. Stuck head. Above normal rainfall. Poor soil drainage. High water table. Course in a swamp. You see the irrigation running in the morning to water chemicals and fertilizer and you make assumptions.

Solutions: Perceptions are perpetuated by uninformed comments and assumptions among staff, management and golfers.

Keep the pro shop and other staff who have contact with the players informed about any unusual occurrences with rain or the irrigation. Tell as many people as possible right down to the beverage cart drivers.

Keep the course on the “dry side” by prudent planning and scheduling of irrigation. Use more wetting agents in chronic wet and dry areas. Use more hand watering on dry spots, but be sure and tell your superiors about the impact on labor and other jobs.

Perception #2: The superintendent is “never” around. He’s “always” gone.

Reality: What is meant is that the superintendent wasn’t available when “someone” wanted him that minute! In the most recent GCSAA survey, Florida superintendents averaged 40 to 50 hours Monday to Friday and 5 to 9 hours on the weekend.

That means 5.5 to 7 days of spending time at the course. We start early. Pardon us if we’re not always there when you play golf after work or for every act of God or emergency.

We have families with working wives. Kids in Little League, soccer and Pop Warner football. Some of us even coach them. Kids with music and dance lessons, orthodontist and doctor appointments. Kids in high school and college sports and activities.

Like any other manager in a business that attends conventions, sales meetings or product and service trade shows, we do too! It keeps us up to date and competitive and we use that education and networking to make our (your) courses better.

Solution: Be visible and make contact with key management and staff every day you’re on property. Take a time management course.

Advise those same people when you’re going to be gone and why, so it’s not a surprise if there is an emergency. They will

Perception vs Reality

Green Side Up



Joel D. Jackson

Joel D. Jackson, CGCS Editor



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happen. There are so many educational opportunities available these days, that you can't possibly attend all of them. Pick and choose wisely based on your course's activity schedule.

Perception #3: A superintendent's job security would be better if they weren't so busy "running for political office."

Reality: Most professionals have associations. People who take a real interest in that profession often give back by serving as officers or directors. Most are volunteers or are asked because not enough people are willing to give of their time.

Officers move up from Director

to President of a local chapter by rotation not by campaigning. All any of them try to do is attend monthly chapter meetings.

The only people who actually "run" for office are the two to four people nominated for one or two spots on the board of the GCSAA.

Since Florida has a 12-month golf season, none of us has really considered "running" for the GCSAA board. Only one did in my 21 years, and his club backed out of supporting him.

The only reason Florida had the past president of the GCSAA was because he moved here while on the Board already and his club agreed to let him finish his service.

Solution: Obviously, you must take care of business at your home club first and foremost. Just make sure your club understands how satisfying and valuable your service on superintendent association boards, water management district committees, turf advisory committees and Audubon-adopt-a-school programs is to you and your profession.

Thank them often and include them as much as possible so they can also make a positive contribution to the golf industry.

Perceptions are a reality of life. They're just not always the facts of life!



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