



The Florida Green

Winter 2003



■ Number 16
San Jose C.C., Jacksonville
Photo by Daniel Zelazek



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SPOTLIGHT: AWARDS, CHAPTER ROUNDUP

Joel Jackson was completely surprised when he was announced as winner of the 2002 Wreath of Grass Award at the FTGA Conference and Show in Tampa. Kevin Downing was presented the Presidents Award for Lifetime Service by the Treasure Coast GCSA.

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COVER STORY: SAN JOSE C.C.

Born in the Florida land boom of the roaring 20s, the San Jose Country Club was envisioned as a resort and a planned community on the eastern shore of the St. Johns River, just five miles south of the heart of downtown Jacksonville.

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PROFESSIONAL DEVELOPMENT: STOP HIDING

Superintendents need to be seen by their golfers as doing their jobs, an important job that requires many talents, all of which they are capable of and proficient in. They need to be perceived as efficient and effective in the performance of their duties. They need to stop hiding.

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HANDS ON: FROST IN FLORIDA!

A footprint made on a putting green that's covered with frost can kill the grass, necessitating costly and unsightly repairs. Also a survey of latest information on insect control, an ingenious technique for creating a dry environment for pvc cement, and some "Junior Tips."

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OFFICIAL BUSINESS: A LOADED GUN TO OUR HEAD

MSMA is the most effective broad-spectrum postemergence herbicide for use on grassy weeds in bermudagrass. It's also a heavy element and Class A human carcinogen.

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RESEARCH: LOBATE LAC SCALE INVADES

A new threat to urban landscape plants as well as to native plants in natural areas is a scale insect known as lobate lac scale. It's now found throughout Dade, Broward and Palm Beach counties.

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JOURNAL/AFTERWORDS: NECROLOGY, JOE LEE, BAND

Jeff Hayden, a founding member and former president of the Seven Rivers GCSA, and Mike Cantwell, a key member of the Everglades and Calusa GCSAs, died this past fall. Mark Jarrell celebrates the contributions and persona of architect Joe Lee. Joel Jackson compares superintendents to the original "Band of Brothers" created by William Shakespeare in Henry V.

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The Florida Green

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

CALL FOR ARTICLES

Hands on Topics: Share your best practices and tips for these upcoming topics. Photographs or slides are encouraged. Digital images that are 5 inches wide at 300 dpi or greater accepted.

2. Spring 2003 – Managing the Putting Surface: Programs and Equipment

New top dressers; brush inserts for verticut units; ultradwarf greens; Was rolling just a fad now over? Mowing heights and turf health. Share your programs and equipment arsenal. Deadline: Feb. 15.

3. Summer 2003 – Overseeding Trends & Poa Annuua Control

Do new grass varieties mean less overseeding? What types, blends, and rates do you use for greens, tees, fairways? Have water restrictions changed your plans? When do you seed? What is your program for controlling Poa annua and volunteer seed germination? Deadline: May 15.

Please submit articles via email if possible. Attached articles should be saved in Microsoft Word or, if you use another word processor save it as a Text file before attaching or you may just copy and paste it into the email text box. Try to limit articles to 1500 words or less. The Florida Green pays \$100 per page and \$50 for 1-3 pictures.

Digital photos must be a minimum of 5 inches wide at 300 dpi for publication-quality reproduction.

Do not write on the back of prints. Attach a Post-it note with ID information. All slides and photographs should include identification of persons in the picture and the name of the photographer.

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I would like to start by thanking Dale Walters for his years of service to the board of directors. Dale has left his position as golf course superintendent and taken on his new position in sales with Lesco, Inc. While serving on the board of directors this year, Dale contributed two great ideas, which we will put into use.

His first idea of starting a benevolent fund will get kicked off at the Florida Reception at the GCSAA Conference and Show in Atlanta in

(attendees) and then have a drawing at the end of the reception for a 50/50 split. This will be a great way to jump-start this fund plus it will be good for the lucky person whose ticket gets drawn.

Dale's second idea is to have an FGCSA booth at select LPGA and PGA Tour events. This will be a good way to showcase our involvement in the world of golf. Items that we will consider for this exhibit include involvement with ACSP, irrigation efficiency and IPM programs. This will take some time to produce but hopefully we will have it together for select tournaments coming up in 2003. We will need volunteers to help man this booth so let us know if you would like to help participate and please give us your ideas.

Our heartfelt condolences go out to the families of Mike Cantwell and Jeff Hayden. Mike was the superintendent at Miramar Lakes Country Club in Ft. Meyers. He lost his life in November. A trust fund will be created to benefit Mike's children. Mike is the fourth golf course superintendent to tragically lose his life this year joining Al Cowing, Chip Fowkes and Tom Crawford. We need to get this benevolent fund underway to help these families in time of need.

Then the sad news that long-time superintendent and recent Golf Ventures sales representative Jeff Hayden also died in early December. The family requested that any remembrance of Jeff be made in the form of a donation to the UF/IFAS Environron. See the articles on Mike and Jeff in this issue. Coupled with the passing of 87-year-old, FTGA founder Joe Konwinski earlier this year, it has

been a tough year of loss for our industry.

If you attended the USGA Regional Seminars in November, you heard the bad news about MSMA from Leslie Smith with the DEP. Arsenic levels in soil and ground water at several of the older golf courses exceed levels allowed by EPA. This definitely puts the future use of the herbicide in serious jeopardy even though the product has been applied in accordance with the label. Plans are to meet with representatives from D.E.P. and DACS to see if more testing can take place and to work with the agencies to supply scientific evidence in deciding the fate of this herbicide.

Another dark cloud is making its presence known is Lobate Lac Scale. This insect pest has been a problem in several counties in Florida including Dade, Broward, Palm Beach and Martin and, if left untreated, can kill such species as ficus, coco plum, wax myrtle, green and silver buttonwood. So far it has been seen on a total of 50 plant species. See the article by Dr. Howard from IFAS in this issue.

Time for the good news!

Joel Jackson, our director of communications, will receive one of GCSAA's highest honors, the Distinguished Service Award. The presentation will be at the Opening Session of the 2003 Conference and Show in Atlanta, Georgia. If you are attending the conference, please make the Opening Session part of you plans. Joel, the drinks are on you at the reception.

I would like to welcome Steve Wright back to Florida. He will be taking over the position of director of golf course maintenance at the Boca West Country Club. Some of

you may remember Steve from the Central Florida Chapter where he was the superintendent at Alaqua Country Club. Steve has also been involved as president of the Carolinas GCSA this past year and I know he will bring a lot of great enthusiasm back to Florida. Steve is replacing a legend in South Florida in Billy Wright (no relation). Billy will be starting a golf course construction/renovation business and will be leaving Boca West after some 25 years. Best of luck to both Billy and Steve.

Finally, I would again like to thank Shelly Foy for the work that she did organizing the ACSP workshops that were held in December. Last report is that around 150 people attended. That's a good start. Let's keep it up. I know that this is a great program and one that golf course superintendents must embrace if we are to truly be stewards of the environment.

May 2003 be your best year ever.

Another dark cloud is making its presence known is Lobate Lac Scale. This insect pest has been a problem in several counties in Florida including Dade, Broward, Palm Beach and Martin and, if left untreated, can kill such species as ficus, coco plum, wax myrtle, green and silver buttonwood. So far it has been seen on a total of 50 plant species.

Good News/ Bad News

PRESIDENT'S MESSAGE



David Court, CGCS

February. We will be collecting donations at the door from contributors

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You Got Me!
FTGA Wreath of Grass Award a Total Surprise

When Tom Alex took the podium in Tampa to introduce the 2002 FTGA Wreath of Grass winner, I thought, "That's right they always present it at the annual luncheon. Wonder who it is this year?"

It only took a couple of sentences into his speech and I knew I was the one. There aren't too many folks who graduated from the U. of South Florida with a major in geology and made their way into the golf business via the U.S. Coast Guard and Orange County School System.

Tom roasted me well that day and the assembly was witness to an emotional acceptance speech.

The Florida turf business is amazing and usually underrated. The challenges are outweighed by the rewards. For my part it has fed, clothed, housed and educated me and my family, and given me opportunities to meet some of the most interesting people in the world. I am grateful that my peers have seen fit to pronounce my efforts in the industry worthy of this recognition. Thank you very much!

Joel Jackson

Kevin Downing: President's Award for Lifetime Service

I've known Kevin Downing for the better part of 16 years, first as a student, and then as a fellow superintendent. I never would have thought that I would one day be presenting him an award of any kind. Not that he is undeserving; I just never saw myself one day being president of a chapter and presenting an award to someone I always looked up to. I'm not going to say I want to aspire to be like him, because Kevin spends way too much time on association-related issues. He lives for this industry and the game of golf equally. If I spent a fraction of the time he spends, I'd be divorced.

Kevin's career began after he received his degree in golf course operations from Lake City Community College in 1975. His first job was superintendent at Oxbow Golf Club in



Treasure Coast GCSA President John Morsut, left, presents President's Award for Lifetime Service to Kevin Downing, CGCS.

Port Labelle from 1975-1978. From there he went on to Atlantis Golf Club in Lake Worth as superintendent from 1978-1982. It is here that he became a certified superintendent in 1980. In 1982 he accepted the superintendent's position at Mariner Sands Country Club in Stuart from 1982-1988. Finally, his last move was to the

Willoughby Golf Club in Stuart where he has been since 1988 as the golf and landscape manager. Kevin was responsible for overseeing the design and construction of the course initially and recently just finished a successful rebuild of the course from tee to green.

Besides being a superintendent, Kevin has a very creative side. He likes to be involved in golf course and landscape design. He has been involved in various projects with Architects Rees Jones, Gary Player, John Sanford and Arthur Hills.

Aside from his managerial responsibilities, his professional involvement includes being active on the Treasure Coast chapter board of directors where he has been responsible for securing education for our monthly meetings for the past four years. He was president of the Florida GCSA in 1983 and continued serving as Research Committee chairman for nearly a decade. He also serves as the alternate voting delegate for the FGCSA at the GCSAA Annual Meeting. He also serves as a director in the Florida State Golf Association. He has served on numerous committees and resource groups for the GCSAA. Everyone knows him in Lawrence, Kan. I'm just surprised that he has never run for office at the national level.

His commitment to the game of golf is a very personal one. I should know. Whenever I am checking on things at my golf course during the evening, there's Kevin at the range working on his swing, analyzing every detail about it. He would ask me to stay and tell him where he is in his back swing. Yeah, me; a superintendent with a handicap of 28 helping a guy with a 7. Sorry Kevin, but that is a bit desperate.

I am glad to have been able to know and now work with Kevin. In him the industry truly has someone it can count on. The Treasure Coast chapter is lucky to have him as a member. I wish him all the best in the future and hopes he continues his commitment to the industry for all of our sakes.

John A. Morsut

Editor's Note: Over the years I have come to admire and respect the passion Kevin has for our profession and his willingness to explore all the possibilities that lie before us. He is never short on ideas and enthusiasm for the industry he loves. Congratulations Kevin. This is a well deserved honor for a lifetime of service.

Kevin's Professional Affiliations

- USGA Green Section Committee
- US Golf Association
- Golf Course Superintendents Association of America
- National Golf Foundation
- Florida Golf Course Superintendents Association
- Florida Turfgrass Association
- Florida Native Plant Society

Achievements

- Certified Golf Course Superintendent 1980
- President, Florida Golf Course Superintendents Association 1982-83
- Consultant, National Golf Foundation 1986-87
- Vice-Chairman, Palm Beach County Amateur Golf Association 1988-93
- Recipient, Native Plant Society Award Martin County Chapter 1989
- FGCSA Distinguished Service Award 1990
- Speaker, PGA seminars on Golf Course Design and Construction 1989-94
- USGA Green Section Advisory Committee 1989-97
- Director, Florida State Golf Association 1996-Present
- Advisory Board, South Fork High School Golf Maintenance Training Program 1990-Present
- FGCSA President's Award for Lifetime Service 2002
- Continuous meritorious service on FGCSA, FTGA and GCSAA committees and resource groups throughout his career.
- Played or visited 70 of the 100 top-ranked golf courses.

Chapter Round Up Calusa

We regret to report that Mike Cantwell, GCS at Miromar Lakes passed away unexpectedly on Nov. 11 (see related article). On Nov. 19, the Calusa Chapter was the host for a three-chapter meeting as members of the Everglades and Suncoast Chapters joined them at Edison Community College in Ft. Myers to hear Hannes Combest of the GCSAA review the upcoming changes and requirements resulting from the Professional Development Initiative.

Central Florida

Congratulations to Joel Jackson, CGCS on receiving the FTGA

The S.F.G.C.S.A. would like to thank the following *Eagle Sponsors* for their generous support of the *2003 Missing & Exploited Children's Benefit Tournament.*



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Wreath of Grass Award at the Conference and Show in Tampa last September. On Dec. 9, the Annual Past Presidents Outing was scheduled to be hosted by John Kopack, GCS at the Legacy Club at Alaqua Lakes.

Following a round of golf the past presidents and the current board members will sign Christmas cards to the chapter members and have dinner together.

Wayne Hosid, Fla. Dept. of Agriculture, will make a presentation on pesticide labeling at the Dec. 16 meeting at the new Mystic Dunes G.C., Jason Moore is the GCS host.; Kicking off the 2003 season Jan. 13, the chapter will hold its annual superintendent/club official scramble tournament to raise FTGA research funds at Stuart Leventhal's Interlachen CC. Guest speaker John Foy will give an update on ultradwarf grasses. Chris Cartin, former superintendent recently promoted to general manager, will host the chapter's annual superintendent/vendor tournament at the Deltona Hills G&CC Feb. 24.

Everglades

The chapter hosted an environmental education fundraiser for the Corkscrew Regional Ecosystem Watershed at Bonita Bay East on Oct.



EGCSA President Jim Leiseberg (right) presents a \$9,000 check to CREW Executive Director Ellen Lindblat at the Environmental Education Fundraiser held at Bonita Bay East. Photo by Joel Jackson.

5. At the end of the day EGCSA President Jim Leiseberg handed CREW Executive Director Ellen Lindblat a check for \$9,000. Pelican Sound's River Club hosted an ACSP Workshop on Dec. 2 to kick off a series of four workshops designed to get courses on the path to certification. The EGCSA and TESTA 2002 panel discussion was at Jason DiMartino's Audubon CC on Dec. 12. A panel of four superintendents and four equipment managers fielded questions from superintendents, equipment managers, mechanics, and

vendors in the audience.

Although the LCCC Endowment Fund Tournament isn't an official chapter function, it is organized and run primarily by EGCSA members and takes place in southwest Florida. Roy Bates announced that this year's event at Jason Brod's Raptor Bay G.C. raised \$15,000 for Lake City Community College. The committee consisted of David Fry, Glenn Zakany, Scott Hamm, John Johnson, Brod, Bates, Mike Smith and Odell Spainhour. Bates added that the success of the event, besides the obvious fantastic support by sponsors, was the hard work and effort by David Fry and WCI Communities, Inc.

North Florida

The September meeting of the NFGCSA was held at Lake City Community College. The chapter chartered a bus and visited the Golf Course Operations program at Lake City Community College. After a tour by John Piersol of the facilities for golf course management, turf equipment technicians, irrigation certification and forestry management, the group teed it up at the Lake City Country Club. The take-home message: Chapters can help

Lake City continue to train excellent future superintendents by participating in career days at their local high schools. Congratulations to Chris Neff for having the Timaquana Country Club in great shape for the 2002 U.S. Senior Amateur Championships. The USGA gave Chris a big "thumbs up" on the excellent conditions. This year's Christmas tournament will be at the Ponte Vedra Club and hosted by Jay Reister.

Palm Beach

The Chapter won the Cavanaugh Cup five-and-two at the annual joint meeting with the TCGC-SA. Mike Perham, CGCS will host the Chapter's Holiday Golf Outing at Jonathans Landing. In November, eight members of the chapter participated in a day-long spokesperson training program with communications consultant Dr. Tom Morgan. The program focused not only on how to deal with crisis communications, but how to work with the media to get out positive stories about golf. Eric Jorgenson hosted the Southeast Region ACSP Workshop at the Mizner GC on Dec. 3. The chapter's annual chartered bus trip to a Miami Dolphins football game was Dec. 15

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Ridge

Our new secretary/treasurer Clay Marshall, GCS of the River Greens GC in Avon Park hosted our October meeting to get some members in the South Ridge more involved. At the November meeting at Cleveland

GC thanks to Ridge President Mark Hopkins. In January Jeff Brown will spruce up the Lake Region Y&CC for our Superintendent/Vendor golf tournament. We will not have a February meeting due to the GCSAA conference in Atlanta. Our big fundraiser, the

will miss his friendship and support. World Woods GC will be the cover story for the FTGA Turf Digest's Jan/Feb 2003 issue. World Woods also recently hosted the finals of the Champions Tour Qualifying School, which kept IGM superintendents Mike Swinson, CGCS, David Younger (Pine Barrens) and Ryan Willis (Rolling Oaks) busy with tournament prep and overseeding grow-in. SugarMill Woods hosted the final 2002 ACSP workshop on Dec. 6. Buddy Keene of the Gainesville G&CC will host the December chapter meeting on Dec. 10.

Bob Harper led the SFGC-SA team of Jim Torba, Seth Strickland, Joe Pantaleo and Kelly Cragin to a convincing victory in the FGCSA Golf Championship at the Southern Dunes GC in Haines City. For the past 17 years the SFGCSA has been a steadfast supporter of the work done by the Florida branch of the National Center for Missing and Exploited Children to the tune of \$150 in contributions. This year Florida Executive Director Nancy McBride announced the total has now reached \$177,000 thanks to the overwhelming success of the 18th Annual M&E Tournament at Dale Kuehner's Colony West C.C. The M&E committee



FTGA president and director of golf maintenance Bobby Ellis of ChampionsGate (red shirt) recently hosted a tour of his golf courses for the Hawaiian Ag Leadership Tour, which visited agriculture operations on the mainland. In Washington while visiting the USDA Office, one worker asked the group, "Hawaii has a governor, right?" Hmmm. Photo by Joel Jackson.

Heights GC in Lakeland hosted by Bob Solns, a technician from the Moffitt Cancer Center in Tampa did a skin cancer ID and prevention program. We held our traditional December meeting at the Harrell's Office in Lakeland with Jack Harrell, Sr. as our guest speaker. Then we enjoyed an afternoon of bowling for a change of pace. Our chapter Christmas outing will be at the Bartow

Ridge Invitational, will be March 3 at the Grasslands CC in Lakeland and we expect Roy Wilshire, CGCS will have the greens fast as usual.

Seven Rivers

We regret to report the death of our friend and founder Jeff Hayden (see related article). Jeff passed away at his home on Friday, Dec. 6. We

South Florida



The series of four ACSP workshops held around the state finished up at Sugar Mill Woods, GC in Homosassa Springs. Audubon International staff ecologist JoEllen Zeh and USGA's John Foy and/or Todd Lowe anchored each session. Speakers at Sugar Mill Woods included (from left): Buddy Keene, CGCS, Gainesville G&CC; Garth Boline, Chi-Chi Rodriguez G.C.; Jan Weinbrecht, UF/IFAS; JoEllen Zeh, A.I.; and John Foy, USGA. Photo by Joel Jackson.

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members, Bill Entwistle, Bob Klitz, Bill McKee, Jim Goins, Dale Kuehner, Joe Pantaleo, Bryan Singleton, and Bill Rayside, were presented with plaques commemorating 18 years of support for NCMEC. SFGCSA members brought unwrapped Christmas presents for kids for the annual holiday party at Emerald Hills on Dec. 14.

Suncoast

At the Annual Suncoast Grounds Maintenance Conference at



2003 Missing & Exploited Children Committee. SFGCSA Members from left: Bryan Singleton; Bill McKee; Jim Goins, CGCS; Dale Kuehner, CGCS; Joe Pantaleo and Bob Klitz, CGCS.

Selby Gardens, Dr. Jim Beard spoke on management of the new bermudagrasses and water resources. Dr. Ed Gilman of UF/IFAS spoke on tree care on golf



With everyone on the team scoring in the 70s, Bob Harper (center) captured low gross honors and led the South Florida Chapter team to a 13-shot victory over the rest of the field. (Left to right): Jim Torba, Seth Strickland, Harper, Joe Pantaleo and Kelly Cragin. Photo by Joel Jackson.

courses. Dr. Lee Bernt, Edison Community College spoke on "Pest Management to Enhance Water Quality" and EMT Scott Montgomery gave a presentation about medical emergencies on golf courses. Rhett Baugh hosted the annual Pro-Superintendent meeting and tournament at Lakewood Ranch C.C. Winners were Chip Copeman/Ted Green (62), Supplier/Supplier Mark Gulick/Paul Goff (5). Royce Steward will host the annual Suncoast Christmas Party at the Gasparilla Inn on Boca Grande Dec. 6-7. Talk about an ideal venue



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Treasure Coast

The 2002 Blue Pearl, a premiere environmental project fundraiser was held on Sept. 23 at Mark Heater's Loxahatchee Club. The event raised \$15,500. NuCrane was again the presenting sponsor. There were tee gifts by Syngenta, Liquid Ag and Hector Turf. Winners were Gross Division - Roy McDonald, Mark Henderson, Gary Fischer and Roy Kimberly, Net Division - Fred Hinkle, Jason Riley, Mike Neary and Tim Cann. In October, Kevin Downing, CGCS was presented with a FGCSA Presidents Award for Lifetime Service at the TCGCSA/Palm Beach joint meeting. Congratulations and thanks Kevin for all the work you have done for the association. On Nov. 7-8 the chapter hosted a special program titled "Dealing with Activists" presented by Dr. Tom Morgan and Dr. Michael Coffman. The next day selected members of the TCGCSA board took part in Dr. Morgan's spokesperson training session which takes a small group of chapter leaders through the how's and why's of dealing with the media.

West Coast

39th Annual Bud Quandt Tournament - Guest Speaker was

GCSAA Past President Scott Woodhead, who now works as the director of membership for the GCSAA. Scott gave a presentation of all the services and programs available to GCSAA members to help them with their careers. Joel Jackson, gave an update on government-relations issues facing the FGCSA. All proceeds from the event will be donated to Environmental Turfgrass Research, All Children's Hospital, H. Lee Moffitt Cancer Center and student scholarships.

At the November meeting, Matt Taylor is scheduled to give Monica Elliott's presentation on mole crickets and grubs and Todd Lowe, from the USGA, will be speaking to us about overseeding. As we move forward we plan to continue our promise to deliver quality education along with CEU's at as many meetings as possible. If anyone has any suggestions for speakers or would like to serve on the education committee please contact any board member.

We have scheduled a vendor appreciation day Dec. 5 at the USF athletic field. We would like to encourage all our members to bring their assistants and key employees to this fun day. Door prizes and a 50/50 drawing will



GCSAA Director of Membership Scott Woodhead (left) was the keynote speaker at the West Coast GCSA's Bud Quandt Fundraiser. Chapter President Jim Sharpe, CGCS is on the right. Photo by Joel Jackson.

be conducted throughout the day. Our affiliate members will have the opportunity to stage/set up any products and/or supplies they wish. There will be no cost for any of our members or employees to attend. A barbecue will be provided throughout the day that will be provided by the affiliate members attending and the FWCGCSA.

Florida GCSA

The Turf Research Account received a helpful boost with a \$5,000 donation by the Everglades Chapter at the fall board meeting at the Bay Hill Club in Orlando. "Over 150 attendees learned how to certify their courses at four statwide ACSP workshops held in

December. Director of Communications Joel Jackson, CGCS made news by being tapped recently for FTGA Wreath of Grass and GCSAA Distinguished Service Award Honors. Secretary/Treasurer Dale Walters, CGCS has left the Royal Palm CC and taken a position with the Lesco Company. Since he is no longer a Class A superintendent he is not eligible to serve on the board. President David Court has appointed South Florida External Vice President Joe Pantaleo to fill Walter's office for the remainder of the year.



EGCSA's Dale Walters, CGCS (left) presented FGCSA President David Court, CGCS with a check for \$5,000 for the state's Turf Research Account

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- Whit Derrick, Tournament Director
- West Coast GCSA



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■ *Number 10, 371 Yards, Par 4*
Photo by Daniel Zelazek

A scenic view of a golf course. In the foreground, a wooden bridge spans across a body of water. The middle ground shows a well-maintained green golf course with a clubhouse building in the distance. The background is filled with tall, dense pine trees under a clear sky.

SAN JOSE COUNTRY CLUB

A Traditional Family-Style Club

By Joel Jackson, CGCS

Born in the Florida land boom of the Roaring 20s, the San Jose County Club was envisioned as a resort and a planned community on the eastern shore of the St. Johns River just five miles south of the heart of downtown Jacksonville. Back in those boom days, the San Jose site was accessible by boat on the river on its western boundary and by car and train as U.S. Highway 1 and the Florida East Coast Railroad ran north and south just east of the property.

Those booming 1920s saw a number of Donald Ross golf courses built across Florida, and the original San Jose course was one of them when it opened in 1925. But the land boom was followed

by the historic bust and depression of the early 1930s and the course languished as a daily fee facility until 1947 when 300 members organized, bought the course and created the private club that exists today. There are 15 of those charter members still active in the club, and the membership spans generations of families from grandparents to grandchildren.

It is that sense of belonging and family that leads Director of Golf Course and Grounds Clayton Estes, CGCS to call San Jose “a traditional Old Florida style club.”

Estes says, “Our members live here, work here, play here and eat here. There is a strong family atmosphere here. They utilize the club to the maximum from the formal Saturday night and holi-



The recently remodeled clubhouse is a classic backdrop for the 408 yard, 18th hole. Photo by Daneil Zelazek.

day dinners to business lunches during the week. The junior golf program has been expanded thanks to the efforts of Head Golf Professional Todd Bork. The kids split time in the summer between the swimming pool and the golf course.

“Lots of the junior golfers walk the course since the 1920s-style course design kept greens and tees close together. In fact almost 25 percent of our play, of all ages, is walkers. We don’t have a formal caddy program, but some folks bring their own. The clubhouse just completed a major renovation which provided better access to the club’s dining and meeting areas, and there are plans for a display area to showcase some of Donald Ross’ original sketches of the course and other historical memorabilia of the club.”

But the clubhouse isn’t the only focal point on the property for socializing. Twice a year the members are invited down to the maintenance facility. There is a golf course maintenance appreciation tournament in February, and everyone meets at the shop after golf for a barbecue dinner and to thank the staff for its efforts. Proceeds from the event go to course projects like landscaping and lightning protection. In October the maintenance facility hosts a member/member event with a square-dance caller and country and western band. Around Christmas time, Estes and the green committee host a staff/vendor tournament. The event has become so popular that Estes has had to make it an invitation-only affair.

Even though the course sits in a densely populated suburban area, the mature trees and shrubs conceal most of the houses, maintaining that parkland atmosphere traditional to the old Ross courses.

The club is located on SR 13 (San Jose Blvd.), which parallels the St. Johns River from Jacksonville to Palatka. The property is bounded by waterways and wetlands. Christopher Creek lies to the north, Pottsburg Creek Swamp to the east, Goodbys Creek to the south and of course the St. Johns about 300 yards to the west. Being in this watershed environment requires Estes to be ever

mindful of his management programs so they don’t add to the environmental impact of the residential development surrounding the course.

To be a good provider for the members, a good neighbor to the residents and a good steward of the environment of the area, Estes and his staff use sound Integrated Pest Management techniques and follow Best Management Practices to minimize chemical and fertilizer inputs on the course and grounds.

Says Estes, “We have established a 15-

foot no-spray setback around all water bodies. We also raise the height of cut on the lake banks to five inches to help filter any possible runoff. Whenever we must control weeds, turf disease, or insect infestations, we do so by only spot treating with small hand-operated sprayers and do not use large boom-type sprayers. That gives us precise control of the applications in those sensitive areas.”

Estes says his secret weapon for safe, efficient pest control on the golf course is Scott Strickland.

“Scott is a 10-year veteran of San Jose and the key to our success is his commitment to scouting and mapping of pest infestations. Through his diligence and vigilance we apply fewer pesticides and only when and where they are needed to control a problem. This is good business and good stewardship.

“We are currently alternating Merit and Chipco Choice applications to control grubs and mole crickets. We did treat 20 acres on our fairways with Curfew with good results. If we do develop any hot spots, we tend to use Orthene for control. But we rely on Scott’s scouting and mapping and soap flushes to ID problem areas and we treat only those problem areas.

“Fire ants can be a problem anywhere in the south. We keep our course clean by making applications of Award fire ant bait in the spring and fall. Any mounds that are spotted are also baited with Award. Nematodes are only a real recurring problem on No. 4 fairway, No. 5 approach and can be a concern on the 2.5 acres of greens and tees and roughly 10 acres of fairway mounds. I have become a believer in using humic acid to improve the soil CEC (cation exchange coefficient) and stimulate the soil microbes. I feel this improves the turf root development and

Clayton Estes, CGCS

Originally from: Torrance, Cal.

Family: Wife JoAnne; son Jimi; Chuey, a yellow Lab; Buster, a Lab/Springer mix; and Monroe a 15-year-old tabby.

Education: A.S. golf course operations from Lake City Community College

Employment history: 1980 TPC, Jacksonville (OJT); 1980-83 Bardmoor, Largo (J.C. Penney

Classic) assistant superintendent; 1983-84 Bobby Jones GC, Sarasota, superintendent; 1984-85 Caloosa GC, Sun City Center, superintendent; 1986-89 Onion Creek, Austin, Tex. (Liberty Legends of Golf) superintendent; 1989-95 TPC Prestancia, Sarasota (Chrysler Cup and Senior PGA Q-School) superintendent; 1995 - present, San Jose CC, director of golf course & landscape grounds.

Professional affiliations and awards: NFGCSA, FGCSA, GCSAA, FTGA. President of NFGCSA 1999-2000. Currently NFGCSA external vice presi-

dent. Award: Received the Nicklaus Award for Superintendent of the Year in 1987 while at Onion Creek.

Mentors: My dad who taught me the game of golf at age 6. He wanted to go to LCCC for the GCO program, but he never got to, so I did. My grandfather who worked at Big Sandy GC in north Georgia after retiring from the farming and fencing business. Alan Maccurach was a friend and mentor who helped me tremendously in my career path.

Goals/Accomplishments/Advice: My goal is to be the best superintendent I can be. So far I feel I’ve had a well-rounded career working on all types of courses from private, daily fee, municipal and corporate owned. I’ve had the opportunity to prepare courses for several televised professional events. My advice to the younger folks would be to leave work inside the gate. It will be there tomorrow. Let your spouse/family know up front that there will be periods of time when they won’t see you for days and maybe weeks on end due to your job responsibilities.

Memorable moments: My 15 minutes of fame came during an internationally televised event when I was interviewed on how we were restoring four greens that someone dug up with a shovel just in time for the Sunday round of the 1993 LPGA Chrysler Cup.

Hobbies: Fishing





The par 3, 12th hole is guarded by one of the three lakes on the golf course which come into play on nine or ten holes. Photo by Daniel Zelazek.

results in less pest pressure, which also means applying fewer pesticides.

"To minimize a lot of post emergent applications for weed control we make two pre-emergent herbicide applications (Dimension) with our spring and summer fairway and rough fertilizer applications, and we make one Spray-Hawk walking boom application of Barricade and Surflan to unseeded areas in the fall prior to overseeding. Scott then takes the 24-gallon electric sprayer and applies the pre-emergent to the bunker faces.

"This year we will overseed the fairways. We skip overseeding every third year to clean up the Poa annua, which gets out of control if you overseed continuously. The greens were seeded on Oct. 7 this year and then Mother Nature threw record-high temperatures at us two weeks later. But now that it has turned cooler they are coming along nicely. We started with 8 pounds of Poa trivialis per thousand square feet and will 'dust' them with follow-up applications of 2 lbs/M as needed not to exceed 16 lbs/M overall.

"When we fertilize our fairway and rough areas, which are done three times a year, we do not spread those no-spray areas with the tractor-mounted equipment. We use walking spreaders so we can better control the coverage of the material and make sure it doesn't get too close to the water. The Poly-on fertilizers we use are a polymer-coated product, which releases the nutrients slowly for rapid turf uptake which prevents any nitrates from leaching into the ground water. This past year we also applied calcium silicate as part of our program to achieve a quicker pH response and to strengthen the turf against disease pressure in the late fall season which can be cloudy, wet and stressful to the turfgrass."

Turf stresses can also be brought on by soil conditions.

"Actually the native soil is pretty sandy, but a lot of river bottom got dredged up and used as fill on the course. We have areas of blue clay, marl and fine sands spread over the course," Estes said. To

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The park-like atmosphere of the Donald Ross design is evident in this shot of #7 green with the 8th hole in the background. Photo by Daniel Zelazek.

compensate for the reduced percolation of these fine-grained soil types, Estes instituted a regular deep-tine aerification program in 1996. Using a Soil Reliever, Estes aerifies the entire course at least once per year. The tees are done an additional two times per year and the greens are done once by Estes' crew and

twice a year by a contract service.

The greens at San Jose are Tifdwarf and maintained to roll 8.0 - 8.5 on the stimpmeter to compensate for the undulations on the challenging greens. But like so many courses of its generation, the greens have a certain amount of off-type contam-

ination which shows up prominently in the summer time with the close cut and necessary verticutting practices. Estes has replanted the practice green by the clubhouse with TifEagle ultradwarf for the members to evaluate for a possible change in the future.

During the winter season, when less disruption to the putting surfaces can be tolerated, Estes aerifies with solid tines on the greens, but he has added his own innovation to the process.

"We aerify with standard concrete star-drill bits instead of using the stock tapered solid tines for two reasons. First, I think they create more surface area for a more effective hole for air and water exchange and they seem to be even less disruptive than the standard tine. Second, they are a lot less expensive than the standard tines."

As with any older course with lots of mature trees, Estes has to deal with shade problems.

"Rather than try to grow turf in the roughs with lots of trees, we have created pine straw natural areas, which have been self sustaining for the past three years. We just use the tractor-mounted blower to clean up the pine needles on the fairways and blow them into the natural areas. We may have to touch up the edges by hand, but it's not as labor intensive as scattering bales of pine straw like some folks have to do."

On the flip side, Estes has to contend with the loss of 20-30 trees per year due to storm damage and lightning. If a replacement tree is warranted, Estes will generally plant an oak tree judiciously so that future



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San Jose Country Club



San Jose Country Club

Location: Jacksonville

Ownership: Non-equity membership

Playing policy: Private. 18 holes, 6,625 yards, par 72. Course/Slope rating: 71.6/128.

Designed by: Donald Ross, opened in 1925. San Jose CC established in 1947. Renovated in 1988 by Bob Walker.

Management: Chris Chapman, club manager; Steve Apple, president; Todd Bork, head golf professional; Ladson Montgomery and Victor Zambetti, green chairmen; Nick Clark, golf professional emeritus; Krista Shaunessy, director of membership services; Clayton Estes, CGCS director of golf course and grounds maintenance.

(In a touch of class, Bork, Clark and Estes are all listed on the score card.)

Major renovations/Ongoing projects: Bunkers - installing/repairing drains and replacing the sand.

Total acreage under maintenance: 115 acres

Greens: Average 5,500 sq.ft., total 2.5 acres. Turf type: Tifdwarf. HOC: .110 - .170.

Overseeding: Poa trivialis @ a total of 16 lbs/1,000 sq.ft. Green speed goals: 8.0 - 8.5.

Tees: 3 acres total of Tifway 419 bermudagrass.

HOC: .475 - .600. Overseeding: perennial ryegrass @ 40 lbs/1,000 sq.ft.

Fairways: 28 acres of Tifway 419 bermudagrass.

HOC: .475 - .650. Overseeding: perennial ryegrass @ 250 lbs/acre. No overseeding this year - Clean-up year.

Roughs: 55 acres of Tifway 419 bermudagrass.

HOC: 1.0 - 1.5. No overseeding.

Bunkers: 47 sand bunkers all machine-raked with Cushman Groom Master with tines and flap attachment.

Natural areas: 12 acres of pine straw.

Waterways/Lakes: 3 lakes, total 10.4 acres designed to capture and retain storm water runoff.

Irrigation: Irrigation lake with deep-well fill as needed. Carol Childers vertical turbine pump system. Toro 670 heads, 80-foot spacing, double-row coverage. Toro Site Pro Network 8000 computer control system. Pro Plus fertigation system with variable-speed injection pump.

Total staff including superintendent: 18 - 16 full time and 2 part time working 40-hour weeks. Lake City Community College golf operations OJT students in the summer.

Leadership: Justin Jones, first assistant superintendent; James Dick, second assistant superintendent; Teresa Xander, landscape supervisor; Ed Weaver and Antonio Lopez, equipment technicians; Scott Strickland, pest control technician; Dennis Swander (LCCC student), irrigation technician; Micha Moten, a budding gospel singer and all-around good guy!

Communications: Weekly GCM staff and safety meetings; biweekly department-head meetings; monthly green committee meetings; monthly club newsletter articles.

Challenges: Our close proximity to the St. John's River requires us to be extra vigilant with our maintenance practices. Heavy soils and shaded conditions in high traffic areas.

Cultural/IPM programs: We use all slow-release granular fertilizers and also spoon feed nutrients with our fertigation system. 75% of our spray program for herbicides is done by hand with a 24-gal. sprayer. In 1996 we began an in-house, deep-tine aerification program, the first time since course was built in 1925.

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Fun Facts

Here are some things you may not know about our cover story superintendent

1. Car: I want to find and restore a 1959 El Camino.
2. The last good movie I saw: A Beautiful Mind.
3. I stay home to watch: Educational television, The Learning Channel, History Channel, etc.
4. The book I've been reading: The Bible. Tough reading. Small print.
5. Favorite meal: Bob Rehberg's fried snook, turnip-greens soup, broccoli slaw and Dirty Bob's hush puppies.
6. Favorite performers: Bob Seger, Pure Prairie League, Meg Ryan, George Carlin, Jim and Tammy Faye Bakker.
7. Prized possession: My dad's 1963 Farm Chemical bowling team shirt he wore when he bowled a 300 game in Louisville, Ky.
8. Personal heroes: Golf course maintenance personnel who happily go in every day and grind it out. Mark Black - he has a gift for getting peo-

ple to do what needs to be done.

9. Nobody knows that: I want to take flying lessons
10. If I could do it over: I would have spent more time with my family. Tournaments, etc. made me miss a lot of things in the early stages of our life together.
11. I'd give anything to meet: Vanna White.
12. My fantasy is: Be a contestant on Wheel of Fortune and meet Vanna White.
13. The one thing I can't stand is: Laziness.
14. If I could change one thing about myself: Increase my tolerance for stupid people
15. My most irrational act: Calling a 6-5, 250-lb. well driller, who buried his truck in a fairway, a stupid SOB. I apologized for getting my blood all over his fist.
16. My most humbling experience: Birth of my son - 12:10 AM, December 25, 1979.
17. The words that best describe me: Only just slightly obsessive compulsive.

shade will not be a problem. He leaves as many snags in place as possible, but removes any that might be a safety problem. When he has to remove a snag, he uses the cut-up tree to create brush-pile habitats and food sources in out-of-play areas.

The club is a member of the Audubon Cooperative Sanctuary Program and Estes has helped in making the program an active part of club life.

"One of our members, Mr. Buddy Pollock, has been a tremendous resource for our pro-

gram. Mr. Pollock personally tends our feeding stations and installs and monitors our nest boxes," he said.

I asked Estes if he was working on making San Jose a certified sanctuary. "We haven't formalized the process yet, but we are doing so many of the requirements it's time for us to document them and get on with the program. I am sending Teresa Xander, our landscape supervisor to the ACSP workshop in Orlando to give her a hands-on orientation in the process to help us get started."

Getting San Jose certified would just be one more accomplishment in a career that has led Estes from Florida to Texas and back. He probably has one of the most diverse resumes I've come across in my years of profiling superintendents. This diversity of experience is a boon to San Jose as he has done everything from municipal course operations on a shoestring budget to preparing high-profile courses for television coverage of professional events.

He credits much of his on-course and career success to former PGA Tour agronomist Alan Maccarrach.

Estes said, "In my opinion American golf is where it is today because of Alan's influence. In the age of televised golf Alan was at the heart of the grooming programs and standards that were set. Those conditions set the mark that others sought to achieve on a regular basis. What I learned was that a well-conditioned golf course came about by following a sound, year-round program and did not result from

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The clean detailed look of the par 3, 162 yard 8th hole is a testament to the professionalism of the maintenance staff. Photo by Daniel Zelazek.

a mad dash to glory in the last few weeks before an event. Undoubtedly, the high standards depicted at tournament sites have raised golfers' expectations but it has also raised our stature in the game.

"I came to know Alan during my tenure at The Tournament Players Club during construction as a student at Lake City and as an assistant superintendent after graduation. It seems we developed a mutual respect as he was instrumental in my landing several key jobs that gave me the opportunity to work at high-profile clubs like Onion Creek in Austin, Tex. and

TPC at Prestancia in Sarasota and prepare those courses for the Liberty Mutual Legends of Golf and the LPGA Chrysler Cup respectively.

"My introduction and inspiration into golf came from my dad and my grandfather. My grandfather worked at Big Sandy GC in north Georgia after retiring from the farm and fencing business. My dad taught me the game when I was six years old and he dreamed of going to Lake City Community College for the golf course operations program. He never got to go, so I did."



Aerial photo of San Jose C.C. shows the parallel hole layout popular in the Donald Ross era. The St. John's River can be seen in the upper left hand corner. Photo by Joel Jackson.

It seems that family and close knit relationships are essential to Estes' personal and professional values and success. They make a good fit with San Jose's traditional Old Florida family lifestyle.

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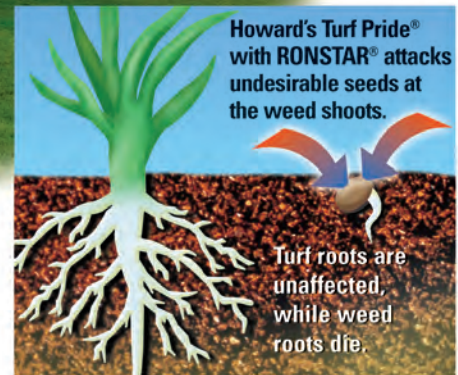
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Professionalism - Stop Hiding!

By Robert LaChance

Despite seventy-five years of the national golf course superintendents association's efforts, when you mention a professional at your golf facility, there is still only one - the golf pro. GCSAA in recent years has tried to address this issue, and after a failed effort at educating the public is now focusing on educating us, its members. Maybe if we can somehow certify that we have the required education, time on the job, and attend even more educational programs continually, we will be viewed as professionals along with our golf-merchandising brothers. Realistically I doubt it.

The goal of providing education to its members in the many diverse areas of our profession is admirable. Continual education in a profession changing as rapidly as ours is a requirement just for holding on to your job. That is my point. These things do not make us professionals or make others view us as professionals. An education and a commitment to continuing education are prerequisites for our jobs. Like the prerequisites in college, you have to take the classes, do the work, and pass the exams in order to prepare for your more advanced classes. Frequently, the prerequisite classes do not even count toward your degree.

Our on-the-job performance is what sets us apart as professionals, and if we want to change our image to that of professionals, we need to change how our performance is perceived by the public, our members or golfers, our staff, our golf professionals, general managers and everyone else we interact with in the performance of our duties as golf course superintendents. After all, when we say we want to be viewed as professionals, we are actually asking for our due respect.

Respect, the adage goes, is earned. Your position or education or certification, do not guarantee respect. You earn respect by how others perceive you while you perform the duties of your job and in how you interact with others while you perform that job. You earn respect by being perceived as deserving respect.

Now this bothers quite a few people, and rightly so I would say. In a world that seems to be more about perception than reality, image than performance, perception is hardly truth. Nevertheless, the reality is that if we want to be perceived as knowledgeable, resourceful, and dedicated; we are going to have to project that image. We can no longer hide in our own little world, and expect others to recognize our achievements. We need to get out and show people what we do - and how we do it. That means we need to interact with more than our own staff, the golf pro's staff, and maybe the accounting staff. We need to get out more!

We need to be seen as doing our job, an important job that requires many talents, all of which we are capable of and proficient in. We need to be perceived as efficient and effective in the performance of our duties. We need to let people know what it is we do.

How can we do this? Most importantly, I believe we must stop hiding. The grounds maintenance building is usually situated where it will not be seen. Is this so the golfer will think the course takes care of itself? I have wondered sometimes.

As impractical and outrageous as it may sound, maybe the superintendent needs to have an office in the clubhouse, an office in which he or she can be seen and even visited. This office needs to be a bit like a professor's office with designated open office hours each week that the superintendent will be in to answer questions and other related tasks. The office at the "barn" does not have to be abandoned, but we need to be perceived as being available to more than our own staff. How about signs on our carts, "Golf Course Superintendent?" As a professional we need to be willing to take responsibility for our work.

Speaking of our staff, how many times have we heard that if you can raise up the lowest, everyone will benefit? Do we speak highly of our crew as trained technicians and quality people? Are they educated in their jobs and do they project and image of competency? We need to address this issue if we want to be viewed as professionals ourselves. Professionals supervise trained personnel, not interchangeable laborers.

The relationship with our assistants and interns needs to be examined too. Some assistants are merely interns putting in the time to qualify for a better job. We need to treat these people with respect and be sure we are providing the education, training and opportunities to learn that a person in these

positions deserves. They are not just extra cup changers, spray technicians or irrigation technicians; and if you are paying them salaries, the Wage and Hour people can straighten you out on this matter. We need to treat our assistants as the professionals they will one day be, and if we are lucky enough to have one of those career assistants, be sure to treat them with the respect and professionalism that you would want applied to you. Another adage is that you earn respect by giving respect.

We need to seize opportunities that present themselves to us. Why not speak to your kid's class on career day or get up and say a few things at your club's annual meeting when you are recognized. You can write for your club newsletter or chapter publication. You might even want to serve on the board of the local affiliated chapter of GCSAA or serve on a national committee if you have a special area of interest. Any of these activities show your dedication to your profession and consequently, your own professionalism.

One of the easiest ways you can show your professionalism is to host a local chapter function. Nothing is more impressive to those at your course than to see that you and your peers get together to share each other's perspective, receive some education, and share some quality time together. Your course can host a golfing event or an educational meeting. Guaranteed, the staff at the clubhouse, the golf staff, and general manager will view you differently when they see the professionalism of your local chapter. Sure, they know you belong to this organization and might even read the newsletters that you leave lying around, but bringing the event to your facility for all to see will make a lasting, positive impression.

Professionalism is about acting as a professional. To be perceived as a professional one must be seen as one. We cannot hide what we do. We need to be visible managers of our facilities and our staff. We do not need certification or a public relations campaign. We only need to be ready to put our best foot forward and let others see us as the professionals we are. We need to stop hiding.

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Controlling Insects and Nematodes - Products and Programs

By Joel Jackson, CGCS

We have to pick Hands-On topics a year in advance so we can publish and broadcast our media kits and editorial plans to our advertisers. They like to target specific products and services to meet your needs relative to the management theme of the issue. So it was at least a year ago we came up with this insect-control topic.

It had been several years since we discussed this aspect of turf management, and the EPA has been running roughshod over the organophosphate family of insecticides for a couple of years, thanks to the Food Quality Protection Act. We thought it might be time to check on how insect control was going in the new millennium. Several trends were evident from the interviews I did at the Harrell's Turf Academy in Pine Mountain, Ga. I had a captive audience of superintendents and suppliers. Here's what they had to say:

General Trends

Insect damage on turf is not a major concern in today's management programs. This is primarily due to the advances in product technology and more thorough monitoring of threshold levels.

Routine spraying of insecticides is rare and applications for worm control are more of a last resort than an automatic preventive.

The products of choice for worm control tend to be the old standbys, with Orthene and its acephate clones leading the way. The pyrethroids are used sparingly if at all. Most are waiting for more peer feedback on successes.

Thanks to Chipco Choice, mole crickets are not the turf devastator they once were. While you still have to pay attention to infestation pressure, most people are more concerned with when, where and how often to apply the product to stretch the budget dollars.

Grub damage is problematic and some cover their bases by alternating Merit with Chipco Choice. Known areas are treated with Merit, but most did not feel they had any significant grub problems.

Nematodes remain a constant threat to weaken turf especially during stressful conditions. Many saw good results from Curfew applications during the recent drought. As NemaCur fades away, we await Dr. Crow's results of testing on alternative products.

Specific comments on products, programs and pests

Susan Leisure, Dow AgroSciences: "One of our new products for worm control that works both on turf and ornamentals is Conserve, an environmentally friendly product. The active ingredient is spinosid and is naturally occurring. The product works by contact and ingestion and has a 14-day residual. Some superintendents are using it in rotation with their regular products. Mach 2 is a pyrethroid product that works to control grubs and surface feeders."

Joe Conoly, Bayer Environmental Crop Sciences: "Sevin sales are up for worm control, and of course many folks use the Merit program and time their applications to control grubs as well as the hatch of mole cricket nymphs." I asked Joe about the use of Chipco Choice in relation to its cost and course budgets. Conoly said, "Acreages are up for the year. We are finding medium and lower budget courses can't afford not to use Choice to get a handle on their mole-cricket problems and stay competitive. Top Choice gives courses the opportunity to custom apply to only specific areas of concern so they can manage their budget dollars accordingly."

Dick Naccarato, Naples Beach Club: "Costs of materials are a concern for us. I use Top Choice to treat the perennial trouble spots. The crickets always seem to come back to the same spots each year due to soil type, moisture, whatever. I prefer the bagged material so I don't have to take a chance on turf damage by the slit injection equipment. I have also tried Talstar sparged on fertilizer. The products are getting better and more effective and so the insect pressure and damage are less. We have learned to manage the pest and the pesticide much better to avoid a lot of repeat applications."

Jim Schilling, Bonita Bay East: "Frankly, I just don't have a really big insect problem. One reason may be the rock layer just a few inches down. It's not a bug-friendly environment. We did slit inject Choice over the entire course and where we either missed or didn't treat, we got hammered. I followed up on those areas with a bait called Snare and applied some Top Choice. I had mixed results with 20 acres of Curfew treatment. Again the rock so close to the surface may have been a problem. Our worm problems are small. We monitor the damage and selectively treat as needed. Usually we grow out of the problem before we need to spray. When we do spray we tend to use Orthene."

Ken Arsenault, Golf Club of Jacksonville: "I've seen more worm problems this year than ever. Maybe it was the wet summer; they sure came out after every rain and usually on the same spots on the same greens. We tend to monitor damage first to see if it is widespread and causing a real problem. When they were as active as they were this year, we generally had to spray all greens if the damage was exceeding our threshold tolerances. We rely on acephate to control any worm outbreaks. I'd like to see more product evaluations on the new products. Right now I rely on what I know works. I learn from my peers and my mentors. The grapevine and word of mouth tell me what's working."

As far as mole crickets go, we are into our third year since our last Chipco Choice application, and we think we have been lucky to get that much good control out of the product. Next year we treat again. We have used Merit for some problem areas not covered by the Choice."

Bill Alford, Golden Eagle C.C.: "I don't have a lot of insect problems. If worms pose a problem I'll chase them with Orthene, Sevin and Talstar. The mole crickets we have don't like the heavy clay soils, which we do have a lot of. Where they are active on fairways and tee tops, we have applied Chipco Choice. We treated two years in a row and the third year we just monitored for hot spots and treated as needed with Top Choice. In the roughs where the slit injection isn't practical (tree roots, slopes etc) we have used the new slow release, coated Orthene product called Precise."

Alan Puckett, The Club at Eaglebrooke: "My biggest insect problem when I got here was that mole crickets were out of control. We used Chipco Choice to get them under control and the course cleaned up well. We treated the fairways the last two years and next year we will skip them and do the roughs. We'll use Top Choice on the slopes. I want to learn more about the new coated Orthene product, Precise, and see how it might fit into our program."

"Worms aren't a big problem. If we see the signs that they are active, we monitor them closely and, if looks like we need to spray, we hold off until the end of the week so we don't have any fire drills over the weekend when the course is busiest. We use a combination of Orthene and Dursban usually. I have tried some DeltaGard, but I really haven't messed around with the new products that much. One thing we do when we spray is to make sure we start and stop the spraying into the collar since the worms will inhabit the tall grass around the green."

"Nematodes are my next concern. I have used NemaCur on three of our fairways for chronically weak areas that don't outgrow the damage. Next year I think I'm going to have to treat the greens. The pressure is building and they aren't reacting as well to cultural practices. I am going to use some Neotec, which Steve Ciardullo has been successful with over at Mountain Lake. We've got to find something that works on 'todes with NemaCur phasing out."

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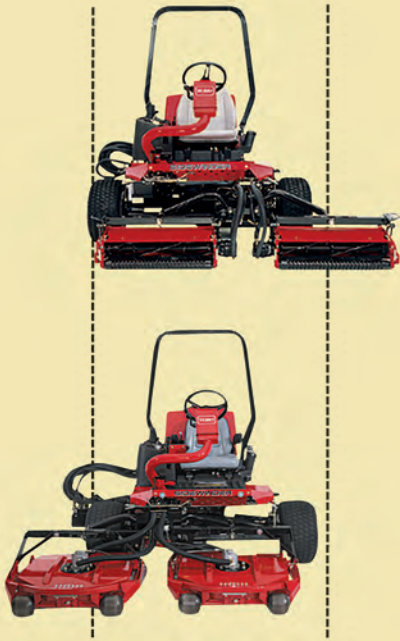
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Frost in Florida?

YOU BET! AND YOU'D BETTER BE ABLE TO EXPLAIN FROST DAMAGE TO YOUR GOLFERS.

Editor's Note: It's that time of year. Here is some general information on the potential for turf damage when the course is having a frosty morning and comments by fellow superintendents on how they handle the necessary delays at their courses. This information can be accessed at www.gcsaa.org.

How can a footprint be a killer?

When it's a footprint made on a putting surface that's covered with frost. It's hard to believe that simply walking across a golf green covered with frost can cause so much damage, but the proof will be there in a few days as the turfgrass dies and leaves a trail of brown footprints. That's why most courses will delay starting times until the frost has melted. And it's also why golfers who appreciate a quality putting surface will be patient during frost delays.

Why does frost cause problems?

Greens are fragile. The putting sur-

face, or green, is an extremely fragile environment that must be managed carefully and professionally. Remember that every green is a collection of millions of individual grass plants, each of which is a delicate living thing. Obviously, Mother Nature never meant for these plants to be maintained at 3/16 or even 1/8 of an inch for prolonged periods. This stress makes greens constantly vulnerable to attacks from insects, disease, heat, drought, cold - and frost.

Frost is essentially frozen dew. It can form when the temperature (or wind chill) is near or below the freezing point. The ice crystals that form on the outside of the plant can also harden or even freeze the cell structure of the plant. When frosted, the normally resilient plant cells become brittle and are easily crushed. When the cell membranes are damaged, the plant loses its ability to function normally. It's not much different from cracking an egg. Once the shell is broken, you can't put it back together.

The proof is in the prints

Although you won't see any immediate damage if you walk on frosted turf, the proof will emerge within 48 to 72 hours as the leaves die and turn brown. And, since just one foursome can leave several hundred footprints on each green, the damage can be very extensive.

Thanks for understanding

The damage isn't just unsightly - putting quality will also be reduced until repairs are made. Those repairs are expensive and, in some cases, the green may have to be kept out of play for days or weeks until the new turfgrass is established. A short delay while the frost melts can preserve the quality of the greens, prevent needless repairs and may even save you a few strokes the next time you play.

Super Tips - Avoiding a frosty reception

Frost delays may be among the most contentious issues a superintendent will encounter during late winter and early spring. Temporarily closing the course until frost subsides can prevent unnecessary damage to turf, but it can also anger golfers eager to tee it up and club professionals anx-

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ious to give their cash registers an early-season workout. Finding the best way to communicate the benefits of these frost delays to both golfers and other golf course personnel was the topic of some recent postings on the discussion forum in the members-only portion of this site.

We are lucky enough to have a pro who understands that golfers cannot get on the course until we give them the go-ahead. We use radios to contact the pro with the information he needs. I have also seen signs describing the dangers of playing on frost posted in the pro shop and near the practice green or first tee. . . Enforcement of the frost policy is the superintendent's job, and educating and communicating with golfers and the pro shop staff is an important part of our job.

*Robert Wright
Assistant Superintendent
Tokatee GC, Blue River, Ore.
6-year GCSAA member*

Each year I post a message in the club newsletter about frost and how it impacts the turf and the golfer. This notice is also posted in the locker rooms. I have a personal meeting with the pro shop and switchboard staff to explain the policy, the rationale and the procedures for making the calls. Either I or my assistants go to the point position, which may be the first tee or the pro shop to answer questions from each and every golfer. This eliminates miscommunication and gives us a chance to interface with the golfers.

*Bruce R. Williams, CGCS
Los Angeles CC, Los Angeles
22-year GCSAA member*

One thing that I have tried is to build communication between the superintendents and the golf pros. I had the opportunity to be an instructor at a golf school, teaching golf-course management. I have seen a tremendous change in the level of respect due to this educating.

*Thomas Trammell, CGCS
Hawks Nest GC, Vero Beach, Fla.
11-year GCSAA member*

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Scenes of winter in New England? How about late winter early-early spring in Orlando. Granted these photos of Disney's Osprey Ridge GC were taken in March 1992, but frosts are a reality to be dealt with every year. Photo by Joel Jackson

GCSAA Web note

Visit the "For Your Golfers" section for information you can post on your bulletin board on frost delays.

I make sure that I or someone from my staff is around the clubhouse to keep an eye on the golfers and to address any questions that may be asked about the delay. I also make it a point to inform the pro shop staff as to why we have a delay and also point out the damage that can be

done. Golfers are always going to be impatient. The best thing to do is to be there to teach them why certain situations happen. I have found the more golfers know about maintenance, the more they appreciate the conditions they are given and the more tolerant they are when conditions aren't that great.

*Steve Cronin, superintendent
Pinecrest GC, Holliston, Mass.
5-year GCSAA member*

Using water-soluble material to create a dry environment for pvc cement
Forget the Bread

By Dale Walters, CGCS

Every once in awhile we all have an epiphany. A light bulb moment. A slap on the forehead - why didn't I think of this idea sooner? An idea that we feel might be original, brilliant, astounding, revolutionizing and ultimately really useful to our industry and to others.

I recently had such a thought. In July I had a 3-inch pipe line that was leaking at a tee fitting. After valving off the area, I cut the pipe and waited for the line to drain, and I waited, pulled some weeds, waited, wrote a To-Do list, waited, then I used a sump pump to remove the draining water flow. The drainage flow continued into a second day. I wanted to use pipe cleaner and pvc cement for the replacement fittings. But with the continuous flow I had to wait until it ceased to make a dry repair.

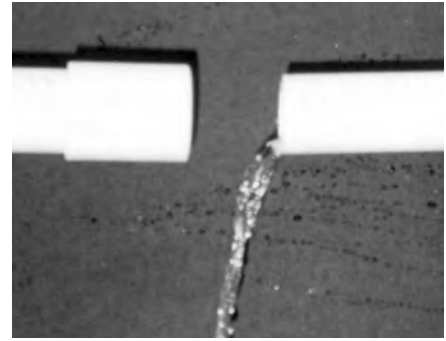
In the past, I have used bread to block the

flow but there were nearby sprinklers and I have seen them clog up from the bread. Then the heavens parted and an idea fell out of the sky. After all, I had plenty of time to think while waiting for the flow to stop. So, it was at this time that I came up with the idea of using water-soluble material to stop the flow and give me time to make a dry situation for the pvc cement.

For several years, I have been using acephate (Orthene) in a water-soluble bag. I thought about the timing it takes for the bag to break down and if I could use a similar material it would be enough time to make the repair. Using a water-soluble material would mean I would not need to be concerned about the pipe lines being clogged after the system is pressurized.

I located a distributor of water-soluble materials that are being used primarily in the medical field. After a visit with the distributor, I was given several types of product to play with. I ran several experiments in the shop to figure out which product would work best in the field.

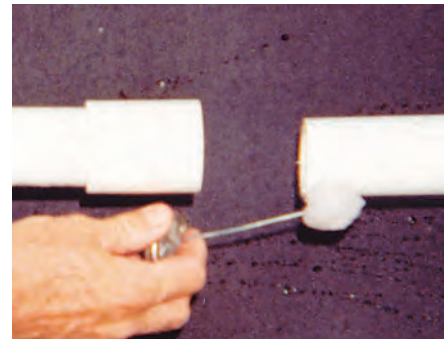
Fortunately (and unfortunately) I had several irrigation leaks shortly after receiving the material. I had one 8-inch, one 6-inch, one 4-inch, one 3-inch,



Slowly draining irrigation lines can hold up repairs to leaks at critical times.



Insert water-soluble material into pipe to block flow. The material will dissolve completely and not plug up sprinklers.



Have all fittings and materials ready-to-go. The temporary plug will provide adequate time to make a pvc cement repair.

and two 2-inch pipe leaks. Instant field testing! In each case I was successful in using the water-soluble material to stop the drainage flow which allowed me the opportunity to make the repair before the flow stopped.

The bruises on my forehead from my "Why Didn't I Think Of This Sooner" experience faded, and in September, I applied for and received a provisional patent for the use of water-soluble material to stop a flow in a pipe line. Presently, I am seeking how to market the material so that others can benefit from the time-saving method of making pvc repairs.

Editor's note: Dale submitted his innovation for irrigation repairs while he was still a superintendent at the Royal Palm C.C. in Naples. This isn't a plug for a Lesco product, but it might be some day. For current contact information, see the inside cover. Good luck, Dale!

Junior Tips Photo Gallery

Darren J. Davis Turf Time

If you have read any of my Florida Green "Super Tip" columns, you are aware that I am strong believer of the old saying that imitation is the sincerest form of flattery. With very few exceptions, I have brought home a tip that could potentially help my operation from every golf course and superintendent I have been fortunate enough to visit in my travels.

In looking for a tip for this issue, I realized I have numerous "junior super tips that I have not written about simply because they were smaller in scale and would require minimal text to explain. Therefore, as another often-used cliché goes, "A picture is worth a thousand words." Here are some "junior super tips" that are essentially self explanatory.

Tool Time



Hanging around: Need more room in your facility, but have fertilizer spreaders taking up valuable floor space? At Reynolds Plantation in Georgia a 2 by 8 plank was anchored to the concrete wall and steel hooks were screwed into the full depth of the wood, allowing a quick, easy and inexpensive solution



One man's trash is another man's treasure: Instead of trashing some old tire rims, at Discovery Bay Golf Club in Hong Kong, these would-be discarded tire rims were cut in half with a torch and mounted on a wall to serve as one-inch hose racks.



Nature's best filter: We have been told over and over by scientists, nature's best filter to protect our ground water is turfgrass. At the Thai Country Club in Thailand, the compound of the golf course operations facility is constructed of pavers that allowed a stand of paspalum to be established in the voids of the block, therefore, filtering any potential pollutants.



Making the sell: Want a new grass variety but can't get the powers-that-be to venture to a nursery or an off-site location? At the Hong Kong Golf Club in Hong Kong, a multi-plot test area was established next to the driving range and labeled with the name of the turfgrass varieties so it can be viewed when it is convenient for the decision makers.

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BENHAM'S BEAT Envirotron Hero Must Have Died a Happy Man

By Don Benham

Jeff Hayden passed away on Friday evening Dec. 6. I was fortunate to be able to attend the funeral on Friday, Dec. 13. The reason I said I was fortunate was because Jeff and I were not close



Don Benham

friends. I would only see him and talk each year at the Envirotron Classic. We also always managed to have a conversation at several meetings we both attended during the year.

Jeff always wanted to know what was new with the FTGA as he was a strong supporter. On the other hand I would question him about the Envirotron Classic, and thank him for the support of the FTGA and the Envirotron. That was our common thread. I did not know the Jeff Hayden that his



Jeff Hayden, left, loved the Gators. He's seen here with at a pre-Gator game gathering in 2001 with (from left) UF/IFAS Vice President Mike Martin, Gainesville CC's Buddy Keene, CGCS, Palm Beach National's Mark Jarrell, CGCS and Brian Schaeffer, superintendent of the Meadowbrook GC in Gainesville.

friends talked about. But from what they said, I came to know how much Jeff meant to his friends, the university and the industry.

David Cheesman and Don Delaney from Golf Ventures, his employer, both had special relationships with him. David worked for Jeff at Turkey Creek C.C. in Gainesville. He described Jeff as a tough and fair boss who influenced him for 23 years. Don Delaney, also a former Lake City classmate, said he never knew if he worked for Jeff or if Jeff worked for him. Don said, most of the time when they had a work disagreement, they compromised and did it the way Jeff wanted it.

Joe Conoly from Bayer talked about how excited Jeff would get about a new chemical and take Joe to different clubs so they all could try it to solve a particular problem.

Glen Oberlander, (Plantation Inn & Golf Resort) described how dedicated Jeff was to the Envirotron Classic, and as soon as it was over he was planning how to improve the next event. Glen also talked about how close they had become and that whenever Jeff wanted to go someplace he would call and talk Glen into going with him. Maybe it was fish-

ing, or golf or driving for hours to look at a boat.

I can relate to that as I have a close friend who lives down the street that I am always talking into going someplace with me even if its only for an ice cream cone at a special store five miles away. We have Christmas-shopped together for 40 years.

Buddy Keene from Gainesville Country Club described how close he had become to Jeff and his family. Buddy felt Jeff was his mentor and he would constantly come to see the condition of the club, where Jeff had also been a superintendent. Buddy said he was always anxious to hear what Jeff had to say and when he had the course really good, Jeff would tell him if anything needed improvement. Through his tears he told how much he loved Jeff.

David Hoggard of Citrus Hills did a lot of fishing with Jeff on his boat and Jeff would always let him bring his son and sometimes his son's friends also. John Piersol of Lake City Community College described Jeff as a student and as a mentor to Lake City students over the years.

Buddy was not the only one speaking through tears and it had a great impact watching these speakers talk about a man they loved. They loved being with him and stated how he had influenced their lives. He was a strong Gator fan and many of the University of Florida administrators were in attendance at the service.

Jeff was a passionate believer in getting involved with the Envirotron, the Seven Rivers Chapter of the FGCSA, the FTGA and the University of Florida. From what I heard at the funeral he must have died a happy man because he had spread happiness every day. Jeff was only 52 years old. We will miss him.

USGA GREEN SECTION REGIONAL UPDATE

Snowbird Season Poses Challenges to Proper Maintenance

By Todd Lowe

The weather has been great for most of Florida over the past month. Daytime temperatures have begun to drop into the mid-80s and most of the rain has subsided. The milder temperatures and increased sunlight have improved bermudagrass growth, which has been important for some courses that did not "weather" well with summer stress.

Bermudagrass growth slows as the temperature continues to drop, and now is the time to decrease mowing frequency, particularly on putting green perimeters and to utilize less aggressive (smooth) rollers on the mowers. A common occurrence on many of our visits during winter months is "triplex ring" syndrome on putting green perimeters caused by routine mowing. The wear patterns become obvious as the temperature drops, but recovery is more difficult at that time. Grooved rollers are excellent tools for actively growing bermudagrass, but are too aggressive for putting green perimeters as temperature decreases. Switching to smooth rollers and decreasing mowing frequency to two or three times weekly will decrease the development of these rings and improve playing conditions for the peak season.

The annual migration of snowbirds has

become apparent on our TAS visits. Conducting visits during summer months in Florida is no problem, especially during mid-afternoon, as the sweltering heat and humidity drives away most golfers and we can usually view the course hole-by-hole without disturbing too many golfers. At this time of the year, getting around the entire course with minimal disturbance is a challenge. The golf course superintendent faces this dilemma each day during the peak season with shotgun starts two to three times weekly and/or 7:30 a.m. tee times. It is important to keep in mind that every maintenance practice requires a specific amount of time, and conditions suffer if the time or



Todd Lowe
USGA Agronomist

labor is not allowed to conduct these practices.

Many Florida golf courses are busy overseeding at this time of year. The weather has a major impact on overseeding success and, while it is important to be mindful of scheduling overseeding with fall tournaments in mind, there are several agronomic factors to consider for optimum establishment. These include:

- Nighttime temperatures consistently in the 50's,
- Average midday air temperatures remain in the low 70's,
- Soil temperatures at a 4-inch depth are in the mid-70's,
- At least 20 to 30 days before the first expected killing frost.

Hopefully, with a little help from Mother Nature, the overseeding will establish uniformly and with minimal impact on the golfers. If the weather trend continues as it has, most clubs should be in good condition for the remainder of the peak season.

For information about the author, see the inside cover.

Editor's note: Early December rains have impacted some overseeding operations and cloudy days have created poor growing conditions causing varying degrees of turf stress. Best remedy is to raise the height of cut until conditions improve. So you want "slow" greens or "no" greens?

IGM/Meadowbrook's \$1 Million Shootout Nets \$10G for Foundation

International Golf Maintenance, a Meadowbrook Company, held its inaugural \$1 Million Shootout at ChampionsGate Golf Resort Nov. 16. At the event, IGM presented the GCSAA Foundation a check for \$10,000, representing proceeds raised during IGM's qualifying rounds held at every IGM-affiliated property nationwide. Fourteen finalists participated in the shootout at ChampionsGate.

Despite severe storm predictions and

rainy weather, the participants' spirits were bright. After monitoring storm activity, IGM and golf course officials moved the shootout time from mid-afternoon to mid-morning in order to take advantage of the first break in the weather. At 9:00 a.m., 13 participants took their one swing at \$1 million from 175 yards on the par-3 second hole of ChampionsGate's National Course. Unfortunately, no one was able to walk away with the prize. However, Fred Rowe from Heritage Greens in Naples did make a hole-in-one during the qualifying event to win his chance at \$1 million. He was awarded a vacation to Orlando to include:

- Two theme park tickets of choice
- Two nights' hotel accommodations
- A round of golf at ChampionsGate Resort
- A shot at the \$1 million prize

The check presentation was held in Champions Hall in the ChampionsGate clubhouse following the shootout. Scott A. Zakany CGCS, executive vice president of IGM, presented Teri Harris, director of development for the GCSAA Foundation, with the \$10,000 check. Prior to the shootout, Zakany surprised Harris with news that in the event one of the participants made the hole-in-



Scott Zakany, CGCS, IGM executive vice president, presents \$10,000 check to Teri Harris, GCSAA Foundation director of development

one, not only would the winner receive the \$1 Million, but the GCSAA Foundation would also receive an additional \$250,000 donation.

"We wanted to create an added bonus for The Foundation," said Zakany. "The whole idea behind the event was to raise money for the GCSAA Foundation. By taking out the extra insurance policy for the \$250,000, it let the participants be more involved in the cause behind the tournament."

The GCSAA Foundation enhances the game of golf through funding applied research and advanced education in golf course management. Since its inception in 1955, the GCSAA Foundation has provided more than \$2 million in support of numerous research studies and more than 1,200 student scholarships.

Plants of the Year for 2003

In a continuing effort to promote the production, sale and use of superior Florida-grown plants, the Florida Nurserymen & Growers Association has announced the 2003 selections of the Florida Plants of the Year. This program was launched to promote under-utilized, but proven Florida plant material. This effort has led to increased retail and wholesale demand since the program was launched with the 1998 selections.

These proven ornamentals are selected on an annual basis by a group of growers, horticulturists, retailers, landscape professionals and University of Florida faculty. For a plant to be considered a Plant of the Year, plants have good pest resistance, require reasonable care and be fairly easy to propagate and grow. The award-winning plants must also exhibit some superior quality, improved performance or unique characteristic that sets it apart from others in its class.

Here are the details on two; the others will be presented throughout the year.

Common Name: Beautyberry
Botanical Name: *Callicarpa Americana*

Hardiness: Zones 7-10

Mature Height and Spread: 4-7 feet tall and wide

Classification: Native deciduous shrub

Landscape Use: Accent or massed in partial or full shade

Characteristics: The small pinkish white flowers appear at leaf axils and are attractive to butterflies. Showier are the clusters of brilliant violet to magenta fruits that replace them and encircle the stems at 3-6-inch intervals. This deciduous native thrives in shade, but flowers and fruits abundantly in more sun. Stems with berries are good as a cut flower in arrangements.



Beautyberry.
Photo: Stephen Pategas-Hortus Oasis

Common Name: Evergreen Paspalum

Botanical Name: *Paspalum quadrifarium*

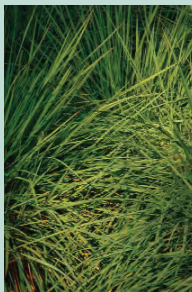
Hardiness: Zones 7-10

Mature Height and Spread: 3-4 feet tall and wide

Classification: Ornamental grass

Landscape Use: Accent, tall groundcover, masses

Characteristics: This attractive bunch grass maintains a dark green color all year and is moderately salt tolerant. Blades are broad when under irrigation and roll up when dry. If grown on the dry side foliage takes on a blue-green appearance. For best results in massing plant four feet apart.



Evergreen Paspalum.
Photo: Stephen Pategas-Hortus Oasis

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MSMA

A loaded gun to your head?

By Dr. Phil Busey

That's harsh language, but it metaphorically describes the situation of those of us who use MSMA. Monosodium methanearsonate (MSMA) is the most effective broad-spectrum postemergence grass herbicide for use in bermudagrass golf and sports turf. It's also a heavy element and Class A human carcinogen.

Each typical application of MSMA adds to the environment 1.0 kg/ha (nearly one pound per acre) of elemental arsenic. Two to four applications may be required for a single series of treatments to control grass weeds such as goosegrass.

Arsenic has only slight volatility, that is, tendency to evaporate; therefore additional applications will, for the most part, either accumulate at increasingly higher concentrations in soil, or move in water. The Florida Department of Environmental Protection's Leslie Smith said that, south of Orlando, one should be concerned about both a groundwater and soil problem. Her remarks (including the loaded-gun expression) were made at the United States Golf Association Green Section Regional Conference in Palm Beach Gardens, Nov. 14.

One attendee asked Leslie, "What's its half-life?" She correctly pointed out that as an element, arsenic never breaks down. To emphasize that in my own way, I say, "its half-life is infinity."

So you can study to no end the complex models for the transformation of arsenic compounds, some of which are more toxic than others, but the bottom line is, the majority of the arsenic stays around. (Unless the owner pays someone to excavate the golf course or sports field and move the arsenic to someone else's property.) What little leaches into the groundwater may be a serious health problem in some cases, but will not diminish greatly what is accumulated in the soil.

If a single application of MSMA were mixed thoroughly in the top 15 cm (about 6 inches) of soil, based on a bulk density of 1.5, there would be a concentration of 474 ppb elemental arsenic in the soil throughout the root zone. This exceeds the existing 400 ppb soil screening level of the US

Environmental Protection Administration. In one application. If even a small percentage of the arsenic reached the drinking water, it would also exceed the EPA limit of 10 ppb arsenic in drinking water, depending on the level of dilution.

Houston, we have a problem.

Or do we? Ironically, MSMA has a very low acute toxicity, based on a high LD50. It takes a relatively large lethal dose to kill 50 percent of laboratory animals. The acute oral LD50 is 2833 mg/kg for rats. For an 80-kilogram rat, about the weight of an adult human male, that would be equal to about 9 shot glasses, a pretty distasteful and unrealistic way to die. The chronic effects of small doses are not easily predicted, but arsenic is not good to be in contact with. If I were an 80-kilogram rat, I'd be more con-

cerned about chronic exposure to MSMA, than the unlikely shot glass. And that's why I always wear protective clothing, whatever I am spraying.

When was MSMA first used in turf in Florida?

MSMA was first used publicly in 1963, and by 1967 Dr. Evert O. Burt of the University of Florida, Fort Lauderdale, reported that it was equal or slightly more effective than disodium methanearsonate (DSMA) for grassy weed control in bermudagrass.

Although that was a long time ago, both DSMA and MSMA were already late arrivals. The arsenicals as a group were the first chemicals widely tested for chemical weed control. Long before the 1942 discovery of the phenoxyacetic acid herbicides (e.g., 2,4-D), the US Army

Corps of Engineers was using sodium arsenite for control of water hyacinth in Louisiana, in 1902.

Some of the early arsenical products used in Florida turfgrass include the Florida East Coast Fertilizer Company's S.A.M.A. 70, a monosodium arsenical, possibly MSMA, and Dal-E Rad 70, a DSMA powder by Vineland Chemical Company. These products usually required four applications to give a serious chance to eliminate goosegrass, especially the more mature goosegrass. Very mature goosegrass could not be controlled.

Aware of the hazards of arsenic, scientists attempted for years to find replacements. In describing metribuzin as such a prospect in 1979, the University of Georgia's Dr. B. J. Johnson said as an afterthought, "If EPA takes MSMA off the market, we may be left with Sencor as our base material."

Rather than seeing MSMA disappear, however, Dr. Johnson made it better by developing (with others) the synergistic combination of tank mixtures with the triazine herbicide metribuzin.

Sencor was Mobay Chemical Company's formulation of metribuzin, and Dupont



had attempted to develop another formulation called Lexon. Another chemical, methazole, formulated as Probe, was being looked at along with metribuzin, but by 1993 its herbicide registration was voluntarily canceled by Sandoz Agro, Inc.

It was the MSMA + metribuzin tank mixture that proved to be very effective at selective control of goosegrass, even mature goosegrass, in bermudagrass turf. The number of sequential applications of MSMA could be reduced from four to two, and with a little bit of metribuzin as Sencor, there would be better goosegrass control than with MSMA alone.

I was present at a 1976 meeting in Arkansas when Dr. Johnson described the promise of metribuzin for goosegrass control in fairways. By 1978, Dr. Max Brown described in the South Florida Green (Volume 5 No. 3) that Sencor could be used for grass weed control. But tank mixtures with MSMA were not mentioned.

History in the Making

The big breakthrough for Florida golf course superintendents and sports turf managers came around 1979, when Dr. B. J. Johnson described metribuzin as the "best product researched and now on the market" for grass weed control in bermudagrass, and he described a 1/8-pound-per-acre active ingredient metribuzin tank-mixed with 2 pounds active ingredient MSMA. At that time he had done some three years of research on MSMA + metribuzin tank mixtures. The interview was conducted by Dave Bailey, at that time superintendent of Atlantis Country

Club, and staff writer for *The South Florida Green* which was edited by Dan Jones.

There was also a flurry of abstracts (not full scientific reports), also in 1979, by Dr. Johnson, as well as by the University of Arkansas's Dr. John King, and the University of Florida's J. A. Tucker and Dr. Wayne L. Currey. There followed a full scientific article on the subject by Dr. Johnson, in 1980. I first became aware of the MSMA+metribuzin tank mix in the summer of 1980, when my bermudagrass breeding plots were overrun with crowfootgrass. But I opted not to include the metribuzin because it was still too new, and I didn't want to take a chance of messing up my experiment.

The Lost Discovery?

One of the interesting mysteries about the MSMA + metribuzin tank mixture is that the first scientific report goes back to 1974. This synergistic mixture was reported in *Agronomy Journal*, a widely disseminated journal, by the University of Hawaii's Dr. Chuck L. Murdoch and David Ikeda. Dr. Johnson was aware of that paper in 1975, because he cited Murdoch and Ikeda's work when he published a study involving MSMA and metribuzin. But the most novel aspect of the Hawaii paper was the tank mixture, which was not a part of Johnson's studies until later.

In conclusion, MSMA appears to have been used in Florida since the mid-1960s for post-emergence goosegrass and other grassy weed control in bermudagrass turf. DSMA had formerly been used for the same purpose, but did become established.

MSMA was not very effective against mature goosegrass until 1979 or 1980, when the MSMA + metribuzin tank mixture swept the industry based largely on the research of Dr. B. J. Johnson. The same mixture was reported, and appears to have been ignored, from work in Hawaii in the early 1970s.

These dates are approximate, but based on written documentation. If anyone has a better memory of the history of MSMA use, I would appreciate hearing from you.

Peter Harrison responds on Organic Arsenicals (MSMA question)

I have no issue with the question mark over using, and the soil accumulation data regarding the organic arsenicals. However, the arsenic while it remains in the soil is an unlikely problem for workers and users, and I also support your comments regarding sprayer user and protection, where chronic problems may occur, although I am not aware of reported problems. Movement from soil is a medium-term problem and of increasing interest.

Arsenic in soil and water, esp. mobile forms is an ongoing issue in a number of areas including widespread problems in at least one country (Bangladesh, where well water can be serious health problem if drunk), old precious-metal mining areas, older tanneries (where arsenic compounds were used at times) even soil in old animal yards and quite a lot of work is being done and some has been published about converting this to nonmobile forms in the soil/water. Some soil microbial solutions are being

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It will not “go away” as you point out, but it may be made a minor issue for those areas where transfer to groundwater, etc. is a problem. Solutions to the issue may arise from left field in areas of bioremediation and phytoremediation sciences... but there is no doubt that these products do an excellent job with weeds... including many sedges, notwithstanding newer products that have become available. Often their use can be moderated by practicing some rotational use among products, a sound ecological practice anyway, although immediate costs are sure to rise.

Similar issues and concepts over the arsenicals are receiving thoughts in Australia, so Florida is not alone. I am looking forward to the balance of the articles.

Peter G Harrison

Principal

Above Capricorn Technologies

Agricultural and Environmental Consultants

PO Box 736, Nightcliff 0814 Australia

**MSMA vs. other sources of Arsenic:
Phil Busey replies to Peter Harrison**

Peter correctly points out the global aspects of arsenic pollution arising from many sources. In Florida and other warm U.S. states, we have leftover CDVs (Cattle Dipping Vats) used by government mandate from 1917 to 1944 to dunk cattle in an arsenic solution (probably arsenic trioxide) to successfully eradicate Cattle Fever Ticks that were causing 50 percent mortality. This nice brew was aug-

mented later with DDT, toxaphene, and chlordane, and the arsenic was later dropped. Cattle could only be moved short distances; therefore Florida has a legacy of 3200 CDVs with a high concentration of arsenic in the soil.

Since then, many “safer” acaricides and insecticides and anthelmintics have been developed for veterinary use in the tropics, subtropics, and warm areas where animal husbandry people have so many difficulties with worms, bots, ticks, etc. Unfortunately, the narrow-spectrum “safer” pesticides are often prone to break down due to evolution of resistance in the target pest, whereas the legacy products of arsenic are dependable poisons.

Today most of the concern and press coverage on arsenic in the U.S. is about CCA (chromated copper arsenate) used to treat lumber for outdoor use, such as playgrounds. I had trouble understanding this, considering the seemingly small areas affected, and the fact that I didn’t eat playground equipment when I was a kid. However, as I point out below, CCA-treated wood accounts for about 60 percent of the import of arsenic to Florida. But the story is never simple.

In one instance in Broward County, after a playground was remediated by replacing soil and play equipment, the sampling extended into adjacent areas of bermudagrass turf maintained with MSMA, and, no surprise, there was arsenic there also.

Natural background levels of arsenic vary tremendously around the world. While the geometric mean of 441 near-pristine Florida soils was reported by the University of Florida’s Dr. Lena Q. Ma and co-

workers as 0.42 mg/kg (420 parts per billion), marl soils such as in Everglades National Park average around 5 mg/kg (around 500 ppb) which exceeds the Florida Department of Environmental Protection (FDEP) industrial soil cleanup goal of 370 ppb, and far exceeds the residential soil cleanup goal of 80 ppb.

No one is talking about excavating the Everglades to remediate a natural background arsenic level exceeding the environmental guidelines. Much of the arsenic there is tied up pretty well by calcite, organic matter, and with oxides of iron and aluminum, depending on pH, and the labyrinth of transformations that arsenic can undergo. The point is to use different background levels appropriate to different soils. And it is extremely difficult to predict what will cause arsenic to show up in drinking water.

Worldwide the major problem with arsenic involves entirely natural origins in well water used by people. The longest-term unintended experiments involving human consumption of arsenic in water have involved skin cancers in Taiwan, and internal cancers in Taiwan, Chile, and Argentina. Many of the natural sources exceeded 500 micrograms per liter (parts per billion), which is associated with approximately a 1-in-10 lifetime chance of internal cancer. The U.S. Environmental Protection Agency threshold is now 10 ppb.

The arsenic crisis in West Bengal and Bangladesh was due to the well-intentioned efforts to provide a safe drinking water supply, free from the problem of gastrointestinal microbes. For example, UNICEF and the Bangladesh Department of Public

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Health Engineering, and later private partners, installed some 3 million tube-wells, mostly since the 1980s, and unknowingly at the time the majority of wells were contaminated with horrendous levels of arsenic which was released from natural arsenic-bearing aquifer sediments.

Since the "safe" drinking water was not tested, the problem was discovered only in 1983 after people, eventually thousands, were diagnosed with arsenic poisoning symptoms, such as gross skin lesions in children. The confirmation of the problem as arsenic contamination of well water was confirmed in 1993, but by 1997, UNICEF was still patting itself on the back for surpassing its 2000 goal of "safe" drinking water.

Bangladesh is now grappling with the largest mass poisoning of a population in history, and if the estimated 200,000 victims of arsenicosis in West Bengal is any indication, the number affected in Bangladesh is far greater, based on 20 million people estimated to have been exposed. The British Geological Survey reported that among 9037 wells tested, 22 percent have arsenic concentrations above 100 micrograms per Liter (ppb).

Arsenic bioaccumulation by lowland plants and aquatic organisms contributes to elevated arsenic in some lowland soils, and bioaccumulation may also be a remedy. The University of Florida's Lena Q. Ma and coworkers showed in *Nature* magazine in 2002 that the brake fern *Pteris vittata* can accumulate up to 126-fold enrichment of arsenic, and the highest concentration was 22,630 ppm arsenic in the

plant. The fern naturally grows better in alkaline environments where arsenic is more available, and grows better in arsenic-contaminated soil than in uncontaminated soil.

As the FDEP's Leslie Smith pointed out on Nov. 14, turf fertilizer cannot be ignored as a possible source of elevated levels of arsenic in golf courses. But the most complete report that would shed light on arsenic in Florida is an extensive draft report, "Quantities of arsenic within the state of Florida, by University of Miami's Dr. Helena Solo-Gabriele and others such as UF's Dr. Timothy Townsend. The bottom line is that about 2500 metric tons of arsenic moved into Florida in the year 2000, 60 percent associated with CCA-treated wood, 20 percent from herbicides, 15 percent from geologic sources such as phosphate mining, and 4 percent from coal.

Although Florida has about 50,000 tons of "accessible" natural arsenic reservoirs, including geological reserves, roughly 50 percent is associated with CCA-treated wood, and between 7 and 20 percent is associated with arsenical pesticides. MSMA (and DSMA) were described as a "difficult dilemma since these chemicals are applied in liquid form directly on crops and golf courses. Contamination from these arsenical herbicides is immediate, quick to disperse, and thus difficult to control. Given these observations, efforts in Florida should focus on reducing the use of arsenical herbicides for controlling weed growth on crops and golf courses," and properly dealing with CCA-treated wood and wood waste.

Reprinted with permission from the e-newsletter, "Turfgrass Management," Vol. 4, Number 22 and Vol. 5 Number 1. For information about the author, see inside cover.

Editor's Note: While not disputing the obvious import of arsenic into Florida soils through chemical use, I do question some of the figures in the report by Dr. Helena Solo-Gabriele referenced above. In the report they used the generally accepted figure of 150 acres per golf course times 1400 golf courses in Florida to estimate the amount of arsenic applied annually.

When you break down the actual acreage per golf course that might logically receive MSMA treatments combined with the fact that many of the 1400 courses don't treat wall to wall or even use MSMA other than some spot treatments, their figures need to be adjusted downward significantly. However, that factor does not relieve superintendents of the responsibility of reducing the use of a product whose final impact to the environment is under scrutiny.

ADA Guidelines Target Golf and Recreational Facilities

If your club is planning to expand or renovate its course or other facilities, you should be aware that the federal government has issued new ADA guidelines that specifically deal with golf courses and

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other recreational facilities.

The Americans With Disabilities Act (ADA) is a comprehensive federal law that prohibits discrimination on the basis of disability. Among its provisions is a requirement that places of public accommodation and commercial facilities be readily accessible to and usable by individuals with disabilities.

The ADA's public accommodations requirements went into effect in 1992. They generally require facilities that are open to or used by the public to be accessible and usable by individuals with disabilities by removing architectural and communications barriers and providing certain aids to assist individuals with disabilities.

Due to the unique features of recreational and outdoor facilities, in July 1993, an advisory committee was convened as the first step in developing new guidelines. After nearly 10 years in development, a final draft rule applying ADA to golf courses and recreation facilities was released Sept. 3. The Department of Justice is now incorporating the new guidelines into the existing ADA framework. When this process is complete, these new rules will carry the force of law.

As with the original provisions of the ADA, private clubs remain exempt. However, to the extent your club is open to nonmembers or the general public, you may be required to abide by the ADA. The regulations summarized below represent the final language awaiting adoption by the Department of Justice.

Golf Courses Overview

- The proposed accessibility guidelines would apply to newly constructed or altered golf courses, driving ranges, practice putting greens, and practice teeing grounds.
- Special emphasis has been placed on the use of golf cars to make the game accessible to the majority of persons with disabilities. As a result, the proposed guidelines provide for access, via a golf car passage (a continuous passage on which a motorized golf car can operate), to various elements of the facility.
- Generally, accessible routes must be located within the boundary of the golf course, must be 48 inches wide (minimum) and connect to the bag drop areas, accessible teeing grounds, and putting greens. Additionally, where handrails are required, the accessible route must be at least 60 inches wide.
- All of the amenities (such as snack bars, toilet rooms, and weather shelters) on a golf course must be accessible and connected by a golf car passage.

Driving Ranges and Practice Tees

- Where practice tees or driving ranges are provided, at least 5 percent of the practice tees, but not less than one tee, must have a minimum clear area of 10 feet by 10 feet with a practice slope which does not exceed 1:48 in all directions.
- The area must be constructed so that a golf car can enter in a forward motion and maneuver.

Golf Car Passages

- Golf car passages must be at least 48 inches wide. This dimension is based on the standard width of most golf cars.
- Where curbs or other manmade barriers exist, openings of at least 60 inches wide, at intervals of 75 yards, must be provided for access to fair ways by golf cars.

Putting Greens

- Putting greens must be designed and constructed to allow a golf car to enter, maneuver within, and exit the putting green.

Weather Shelters

- Weather shelters must be designed and constructed to allow a golf car to enter and exit in a forward direction.
- A clear floor or ground space of 60 inches by 96 inches (minimum) is required to allow a golf car to be driven directly into a shelter and exit in a forward motion.

Boating Gangways

- The proposed guidelines note the difficulties for gangways (bridges that link land or fixed structures with floating piers) due to changing water levels that may affect the slope of such structures. As a result, transition plates at the top and bottom of gangways are permitted to provide for level landings. Transition plates should have slopes that are less than or equal to 1:12. Several techni-

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cal exceptions are provided to this requirement.

Slips

- Where boat slips are provided, the guidelines require at least 3 percent of the slips, but not less than one slip total, comply with accessibility requirements. The new regulations provide a chart listing the number of slips required by total marina size. Persons with disabilities should have access to different types of boat slips; however, the slips may be clustered in the same area.

Swimming Pools, Pool Entry, and Exit

- Swimming pools must have at least two means of entry and exit. A sloped entry or lift must be the primary means of access for swimmers requiring access accommodations. The secondary access can duplicate the primary means of access and may include transfer walls, transfer systems, or stairs.
- Swimming pools with less than 300 linear feet of swimming pool wall may (as an exception) have only one means of access, but that means of access must be either a lift or sloped entry.

Shooting Ranges

- Shooting facilities: Where fixed firing positions are provided at a site, at least 5 percent, but not less than one of each type of firing position must be accessible.
- Fixed firing positions: Fixed firing positions must contain a 60-inch-diameter space and have a slope no steeper than 1:48.

Editor's Note: This is a condensation of the some of the major points affecting golf courses and recreational facilities. The Americans with Disabilities Act - What you need to know" will be the subject of the GCSAA "Current Issues in Golf" program at the Atlanta Conference and Show on Thursday, Feb. 13 from 2:30-4:30 p.m.

On the Web

The complete long version of the Federal ADA document can be viewed at the GCSAA website by registered GCSAA members only. Go to www.gcsaa.org. Select Government Relations and follow the links.

Current News & Issues...

Curfew Granted 24C Label

According to a recent e-mail from Dr. Brian Unruh of the UF/IFAS West Florida REC in Milton, Dow Agro Science's two-year wait has ended as the United States EPA has granted a 24C label for the soil fumigant Curfew. After being limited to applying Curfew to only 5,000 acres per year for the past two years under an experimental use permit, Dow will now be able to take orders for treatment of more fairway acreage.

Curfew, a soil fumigant, has been used in agriculture for years. Two years ago, Dow conducted test applications on several Florida golf courses in cooperation with the Florida DEP. The state signed off on the use of Curfew for nematode control on golf course fairways, but the U.S. EPA was not able to come to a decision within the mandated 90-day review period and the decision-making process has dragged on for two years. Dow enlisted the aid of superintendents to write their legislators about the importance of this product as a potential alternative to Nema-cur, which is being phased out after the federal agency seemed to ignore the state of Florida's acceptance of the product's use on golf courses.

Those courses that were able to book fairway treatments the last two years reported excellent results and turf response especially during the tough drought-induced growing conditions.

Arsenical Herbicides Under Review

Herbicides containing arsenic compounds are the subject of a statewide task force in Florida. The action is the result of the arsenic levels found in soil and water samples taken from golf courses in South Florida. The issue was moved to the front burner when land sales transactions were put in limbo as the arsenic levels found in samples during routine environmental audits were found to exceed health-concern levels.

Arsenic is a naturally occurring element and can be found in most any soil and water sample in Florida, which complicates the regulatory process. In fact natural background levels can exceed the regulatory level being proposed by Florida Department of Environmental Protection.

Right now, applying arsenical herbicides is an obvious, easy target source of arsenic being added to the environment. But, arsenic is also found in fertilizers (it combines readily with phosphorus), bio-solids, mulch, native soil and fill dirt, native limestone marl and rock formations, and waste water. Determining the source of the arsenic in a sample is nearly impossible. When the sample is processed, the elemental arsenic remains with all the attached molecules having been removed in the process.

Stakeholders will meet in Tallahassee in late January to discuss the use of arsenical herbicides. An informal survey of courses concerning the current use patterns of the commonly used grassy weed herbicide, Monosodium methanearsonate (MSMA) revealed the modern trend of spot treatment versus wall-to-wall spraying common 20-30 years ago. With the advent of best management practices, and integrated pest management principles, and new chemistry - the overall use of MSMA has declined considerably. Tropical signalgrass is cited as the weed still requiring use of MSMA for good control. Other products including pre-emergent herbicides are available as alternatives to using MSMA to control the goosegrass, crabgrass and the various sedges.

Protecting the environment should be our number-one concern, but as in any regulatory action, science should play the major part in determining the facts of risk and exposure and environmental harm. Arsenic is known to the general public as a poison and recently was the focus of a controversy concerning the treated-lumber industry. While no medical evidence showed a real health concern, the public perception of arsenic and the political nature of the issue forced the industry to change to a different preservative. The same situation is very possible for turf applications of arsenical herbicides.

Superintendents should take a serious look at their weed-control programs and determine what role MSMA plays in the conditioning of the course. We may be forced to reduce or eliminate the use of MSMA entirely. A cost analysis should be done to include pre-emergent weed control products and other more expensive, but effective post-emergent products.

See the related article on MSMA by Dr. Phil Busey in this section. Dr. Busey gives a detailed account of the history of MSMA use in two excerpts from his e-newsletter, "Turfgrass Management." The complexity of the issue is evident from the commentary in the article.

Water Restrictions - The New Way Of Life

It is probably safe to say the drought in Florida is over. Polk County posted a new total annual rainfall record set in 1948; the new record for 2002 is 72 inches. Regardless of lake levels returning to near normal and more frequent rains helping with turf irrigation, the growth and development of Florida rushes on and that prospect has water-management districts for the most part, keeping watering restrictions in place.

Out of necessity there has been increased cooperation between the golf industry and the water management districts, but the five water-management bodies still approach their sovereignty with their own particular viewpoints and must be dealt with independently.

At the last check South Florida, Suwannee and Northwest Florida districts had no watering restrictions. Southwest Florida still has two-day-per-week restrictions in general, but has acknowledged golf courses' need for flexibility in turf management and has relaxed scheduling constraints, but cautions users and permit holders to stay within permitted amounts and follow best management and conservation practices.

The St. Johns River district is still on twice-per-week watering with the usual prescribed exceptions for hand-watering hotspots, overseeding, frost and wilt protection and new turf establishment.

The bottom line is we need to continue our involvement with the various districts so they know we are trying to do the best we can in managing water resources for golf which is a major contributor to the state's economy.

Compiled by Joel Jackson, CGCS



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Reach Out and Teach Someone

ACSP UPDATE

It takes a long time to build trust and only a second to have that trust destroyed

By Kevin A. Fletcher

Golf course managers across North America have long expressed a desire for the general public, as well as their members, to understand what it really takes to manage a golf course. They've also struggled to highlight the environmental stewardship efforts they're taking on their courses. This is especially true in Florida. Faced with negative stereotypes about golf courses as polluters of the environment and wasters of water, superintendents need to find ways to communicate their commitment to good stewardship and help people appreciate the value that a well-managed golf course can provide for wildlife and the environment. Focusing on outreach and public education can help you achieve these important goals.

The Benefits of Reaching Out

You need to start thinking about your golf course as just another type of business in the community. Any business, with a vision of its place in the community, cares about the relationships it has with a wide variety of stakeholders. This includes customers, local government officials (elected and professional), neighbors, regulators, reporters, other businesses, community leaders, etc.

The best businesses also understand that it's better to define their relationship with their communities and the messages they want these stakeholders to hear, rather than wait for someone else to do so and tell an inaccurate story. Remember that it takes a long time to build trust and only a second to have that trust destroyed. Promoting your environmental stewardship efforts is a great way to build trust and manage how the people in your community think about you and your golf course's role in the community.

Communicating with your stakeholders about your environmental efforts can also help you gain recognition and support from:

- your golfers
- your members
- your bosses, and
- your community.

Increase golfer understanding of the wildlife on your golf course and why you're doing the things you are to protect and enhance the environment.

Let the public know that environmentally-managed golf courses can be valuable community resources - whether or not the public ever gets to step on the course.

Facing Concerns

Reaching out to public golfers, members, guests, and the local community is not always easy. Superintendents from private clubs are often concerned about keeping a low profile, while public course managers often feel their golfers are too transient to care about what's happening beyond the green. Both may be reluctant to invite more oversight or input from golfers or the public. Most of all, taking that first step - picking up the phone and reaching out - is often the hardest obstacle to overcome.

All of these concerns have been successfully dealt with by golf course superintendents -



Students at Spring Lake Elementary School in Altamonte Springs install a butterfly garden and a bird feeder in a protected area on campus. The project was coordinated by Bob Karnes, superintendent at Disney's Bonnet Creek Golf Club, where his wife, Rose, teaches gifted students. File photo by Joel Jackson

remember that you're simply helping to operate a business in your community. Outreach and education can take many forms and you can choose projects that are best suited to your course. By taking one step at a time, you can build support and effectively communicate your environmental management strategies.

Identifying Support

The first logical step is to designate one person who will take primary responsibility for communicating your environmental goals, objectives, and projects to patrons, staff, decision makers, and community members. This person may be the superintendent, manager, golf professional, or someone in a respected position who can comfortably communicate with a variety of people. This also could be someone from your Resource Advisory Group - created through the Audubon Cooperative Sanctuary Program for Golf Courses.

Start by contacting golfers at your course. Inform them of your involvement in conservation projects and invite their participation. A newsletter article or announcement on the bulletin board requesting help from individuals to assist with projects, such as wildlife surveys, nest box construction, or monitoring, may result in more positive responses than you may think.

Prepare a list of organizations, agencies, and people from the community who might be interested in helping with conservation projects on the course. This list could include a local schoolteacher, scout leader, or garden or bird-club member. For larger projects, consider college interns, local Fish and Wildlife agency personnel, Cooperative Extension agents, or members of your town conservation committee or local board. Some people may be interested in helping with specific projects, while others may be willing to get involved in all aspects of project implementation and communication.

Remember, achieving public input doesn't mean you have to have an open house for your community or base decisions on what your neighbors want. Think of "the public" as members of the local community who can help you with publicity, habitat enhancement, water monitoring, native plant selection, or other environmental projects.

Choosing Outreach Projects

It goes without saying that every golf course is different, but this is especially true when it comes to choosing outreach activities that are best suited to each course. What works for one golf course may not be appropriate for another. Some courses may have greater flexibility in inviting community participation, while others may be bound by labor union contracts or club regulations that prohibit certain types of activities.

Listed in this section are a variety of outreach activities that have been successful on a number of golf courses that participate in the ACSP. Your Resource Advisory Group can help determine which activities will be most appropriate for your course.

Request help with nest boxes - As a good starter project in the Wildlife Habitat Management section of the certification program, nest boxes may also serve as a catalyst for ACSP involvement. Here are a few suggestions:

Invite golfers to "adopt-a-box" by donating money for one or more boxes and agreeing to check and maintain them throughout the spring and summer.

Make a few extra birdhouses every year. Donate the boxes to golfers, schools, or the local cemetery association to stimulate interest in your stewardship activities.

Invite a local Scout troop or Eagle Scout to make and monitor your nest boxes.

Sponsor a workshop for members' children or resort guests to make nest boxes for the golf course. Extra boxes can be given away.

Place a few nest boxes within view of your property border. These boxes will subtly communicate a message that the course is concerned about local birds and wildlife.

Create a garden - If you choose to create a garden for butterflies, hummingbirds, or songbirds, invite gardeners at your course to help with planting. A local school class, Scout troop, or after-school program may also like to help. You can expand garden activities to include a brief lesson about connections between plants and wildlife. Invite a local newspaper to visit on planting day to garner positive publicity.

Inventory Wildlife - A great way to get

people involved in inventorying wildlife is to provide wildlife inventory cards to golfers as they pick up their scorecards. You can even encourage people to fill out these cards by creating a raffle. Each filled-out card can serve as one raffle ticket. Alternately, you can simply post a wildlife inventory list in the pro shop or in locker rooms. Provide books on natural habitat, building nest boxes, butterflies, bird identification, or environmental issues as a service to your golfers. These can be checked out at the club or offered in a lounge area.

Create a nature guide - Create a simple hole-by-hole environmental guide for golfers. At each stop, you can point out interesting natural features or environmental projects. This can include native plants, nest boxes, unique trees, habitat areas, common wildlife, IPM practices, and water conservation measures. For example, at Gainesville Golf and Country Club, natural areas on the course were highlighted on the scorecard.

Host nature walks - Ask golfers who are knowledgeable about birds to host an early-morning walk to look for birds and other wildlife species on the course. People who attend can add their sightings to the club's wildlife inventory. Providing refreshments is a nice way to conclude the walk. The Old Marsh Golf Club in Palm Beach Gardens, for instance, organized a nature walk and a subsequent nature-oriented poster contest for local schoolchildren.

Lead a golf course tour - Very basic golf course tours have a great impact on public perception. A successful outing demonstrates goodwill and will

spread by word of mouth. Consider hosting an outing once per year for members or regular golfers, or extend the invitation to specific golfing groups (e.g., seniors, ladies), grade school children, young adults, biology clubs, Scout groups, college students, local golf course superintendents, or even local media. Your tour should showcase various aspects of your stewardship efforts.

Use tournaments to showcase environmental aspects of the course - If you are hosting a tournament, use the opportunity to educate people about the environmental quality of your course. For example, highlight your ACSP involvement through the media or put up a simple display to show some of the environmental projects you've undertaken. Create a simple media fact sheet that highlights stewardship accomplishments and key natural features of the course.

Teach good stewardship to golfers - If your course offers golf lessons or has a junior golf program, include lessons on how golfers can support good environmental stewardship while they play. Repairing ball marks and divots are just the beginning of what golfers can do. Discuss how golfer demands for fast greens and perfect conditions can stress turf and pose risks to turf health and the environment. Encourage people to view natural areas as integral to the nature of the game and to respect wildlife and natural habitats on the property. Use the Golf & Environment Summit "code of ethics" as a starting point (*see sidebar*).

Offer a workshop - A wonderful way to develop communication skills is to begin talking to

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small community groups. You might speak with a local school class, garden club, homeowner's association, or superintendent's association. Choose a topic you're comfortable with, such as tree and shrub care, integrated pest management, environmental quality on your golf course, or your involvement with the ACSP.

Encourage neighborly stewardship - Write a letter to course neighbors to encourage participation in environmental stewardship activities in their own backyards. This may tie in well with nest box giveaways, providing garden or lawn care tips, or a seasonal golf course tour.

Host kids projects - Get kids involved by making bird feeders or houses for the course or their own backyards, hosting a fishing derby, or leading a school tour. You can also get kids involved with planting gardens, creating nature guides, or tracking wildlife on the course in the winter. Getting kids involved in environmental activities pulls parents into the golf course for non-golf activities and helps people begin to see the property not just as a golf course, but as a community asset.

Sponsor a school - Sponsor a local school in the Audubon Cooperative Sanctuary Program for Schools. This is a sure way to let the community know you care about the environment. You might also offer one field trip to your course as part of your involvement with the school. To date, nearly 250 schools have been adopted by ACSP member courses as part of their outreach efforts. (To receive a school program brochure, just write or call Audubon International.)

Being an Environmental Community Leader

By coming out from behind the bushes and engaging the community, you might find yourself serving a special role. A reporter for CNN recently covered a story about Eufaula, Ala. and this city's efforts to become the first Certified Audubon Sustainable Community in the world. The entire city has embraced an environmental ethic and people of all walks of life are involved in a master-planning process that will look to blend economic, environmental and social goals. It's an exciting story, and one that began because of the efforts that the three local golf courses were taking through the ACSP. Once town officials learned about the superintendents' efforts to enhance habitat, protect and conserve water and reduce resource use, they became intrigued with the Audubon Cooperative Sanctuary approach for all of Eufaula.

You have a unique opportunity to serve as environmental leaders in a community - a catalyst for interest and action by people of all walks of life. You can get others - homeowners, schools, and businesses - involved in the types of actions you're taking and create a community network of environmental stewards. You may even inspire your entire town to get involved. So start doing things to help the environment and your course and don't forget to tell someone about it.

For information about the author, see the inside cover.

Environmental Code of Ethics for Golfers

The American golf community is dedicated to preserving golf's treasured links to nature. We recognize our historic tradition of integrating the game with the natural heritage, character and challenges of the landscape on which it is played. As golfers, we accept our responsibility to ensure that golf courses are managed in harmony with the environment.

We commit to...

- Use and protect natural resources on the golf course in an environmentally responsible way.
- Foster wildlife and natural habitats in non-play areas of the golf course.
- Respect designated environmentally sensitive areas within the course.
- Support golf course management decisions that protect and enhance the environment.
- Encourage maintenance practices that promote healthy turf.
- Plan long-range conservation efforts on the golf course.
- Educate others about the benefits of environmentally responsible golf course management for the future of the game and the environment.

Adapted from "Environmental Principles for Golf Courses in the United States," March 1996, Golf & the Environment Summit, Pinehurst, N.C.



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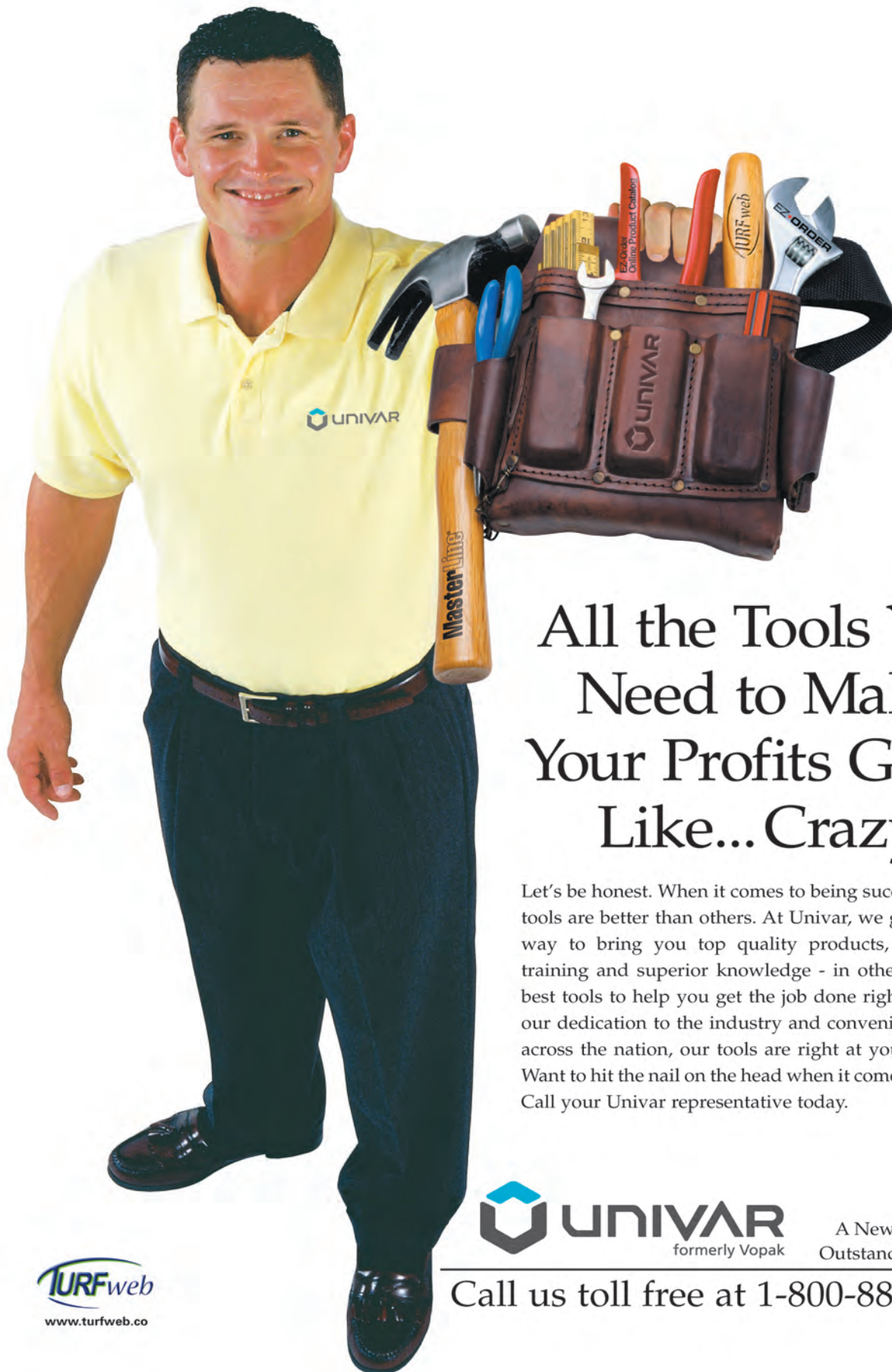
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Lobate Lac Scale Invades Southern Florida

By F. W. Howard

A new threat to urban landscape plants as well as to native plants in natural areas is a scale insect known as the lobate lac scale. This scale insect, known scientifically as *Paratachardina lobata lobata*, is exceptional in its wide host range, rapid rate of spread, and lethal effects on the hosts that it infests.

During the few years since its initial dis-

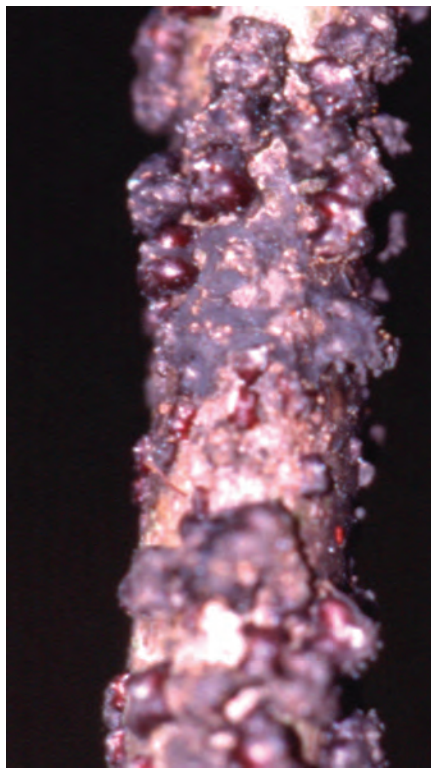


Native shrubs like cocoplum, myrsine, wild coffee and wax myrtle (pictured here) are extremely susceptible to the lobate lac scale. Heavy infestations on these and certain other native species eventually causes branch dieback and in many cases death of the shrub. Photo by F.W. Howard.

covery in Florida in 1999, this scale insect has been detected on more and more sites, and is now found throughout large areas of Miami-Dade, Broward, and Palm Beach counties. It has been identified on more than 120 species of plants, including valuable shade trees, flowering trees and shrubs, fruit trees, and at least 40 native plant species. Unfortunately, the host list continues to grow.

The scale insect infests twigs and small branches, and is generally found on the woody portions, not on green growth or foliage. Only females of this species have been seen in Florida. Many species of scale insects can reproduce by a process called parthenogenesis, that is, by unmated females, and the lobate lac scale probably has this adaptation. Parthenogenetic scale insects are able to reproduce very rapidly.

The immature scale insects are very difficult to detect without magnification, but the mature females are very conspicuous. They may appear as dark little lumps along the twig. Upon



Discovered in 1999, the lobate lac scale insect shown here is spreading rapidly in southeast Florida. The insect is known to attack more than 120 species of shade trees, flowering trees, fruit trees, woody shrubs, and more than 40 species of native plants. Photo by F. W. Howard.

closer inspection, each lump will be seen to be X-shaped, this characteristic being due to their four prominent lobes. They remind some observers of tiny bow ties. Their color is a deep reddish-brown.

All scale insects live by piercing into plant tissue and sucking the juices. In many kinds of scale insects, the alimentary track is built to filter and absorb the plant sugars. Such insects give off a watery waste called 'honeydew'. Although not rich in sugars, the honeydew contains enough to support the growth of certain fungi that form a black coating known as "sooty mold." The sooty mold associated with lobate lac scale forms a particularly heavy crust, and commonly covers the scales themselves.

Most of its hosts are woody, broad-leaved trees and shrubs. The insect has not been in Florida long enough for researchers to gauge its effects on different kinds of plants with any degree of certitude, but it is already known that certain native shrubs, including cocoplum, myrsine, wild-coffee and wax-myrtle, are extremely susceptible. The lobate lac scale builds up heavy infestations on these and certain other native species and eventually causes branch dieback and in many cases death of the shrub. Heavy infestations have been observed on a large array of exotic landscape plants, including several species of Ficus, silver button-wood, and black-olive.

The host plant picture has been changing rapidly. For example, a few months ago, the lobate lac scale was found on mango trees, but the infestations on this host were extremely light. More recently, heavy infestations of this scale insect were observed on mango trees in one grove. Willows in a natural area where many native plants were highly infested were only lightly infested in August. The same willows were heavily infested when inspected again in November.

The species belongs to the insect family *Kerriidae*, or lac scale family. The true lac scale insect has been cultured for centuries in southern Asia as a source of raw material for making shellac. Most species of *Kerriidae* are native to the eastern hemisphere. The lobate lac scale has no known commercial value, nor is it known to be a pest in its native home. In fact, it has not even been collected very often in India or Sri Lanka.

In chemical trials under way at the University of Florida's Fort Lauderdale Research & Education Center, a high degree of control of lobate lac scale on large ficus trees was obtained with a root drench of Merit. These experiments are being continued to find the most effective and economical dosages and treatment intervals. A foliar spray with horticultural oils is another option being tested. University of Florida and U.S. Department of Agriculture entomologists are cooperating in designing a research project to develop biological control for this pest and have applied for grants to support a major effort.

For information about the author, see inside cover.

Web Information

Information is available on the Internet in the University of Florida Department of Entomology and Nematology online publication Featured Creatures: http://creatures.ifas.ufl.edu/om/scales/lobate_lac.htm.

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NECROLOGY

Jeff Hayden - Superintendent, Supplier and Friend

Jeffrey P. Hayden, born in Niles, Mich. July 31, 1950, died Friday, Dec. 6 at his home in Homosassa.

Jeff served in the United States Army from June 1970 to December 1971 as a bar and club manager in Pleiku Officer's Club and Toy Hoa Officer's Club in Viet Nam.

He was affiliated with the golf and turfgrass Industry since 1958 where he started work at a family-managed golf facility in Cassopolis, Mich. and ended his career as manager of the West Central Florida territory for Golf Ventures, Inc.

He had been a member of Golf Course Superintendents'



Jeffery Paul Hayden. July 31, 1952 - Dec. 6, 2002.

Association of America since 1974; was a member of Florida Turfgrass Association since 1974 and a director from 1986-92; was a member of North Florida Golf Course Superintendents' Association from 1974-91, vice president from 1980-82 and president in 1982; was a member of West Coast Golf Course Superintendents' Association from 1982-87; a director from 1984-87; and vice president 1986-87; and was a founding member of Seven Rivers Golf Course Superintendents' Association from 1991 to 2002 where he was a director from 1991-98; vice president, 1991-93 and president 1993-95.

Final Words of Wisdom and Advice from Jeff Hayden

As most of you know I have been affiliated with the turfgrass industry in one way or another since 1958 when I started work on a family-managed golf course in Michigan. After graduating from the golf course operations program at Lake City Community College, I devoted my time and heart as a superintendent or salesman of turfgrass equipment and supplies for close to 30 years. The industry and my family were my life.

I have touched the lives of many superintendents in the turfgrass industry as a friend, co-worker, mentor, or simply someone to share my knowledge and information with. I loved the industry and was well known for "do as I say, not as I do." Anyone could call on me at anytime and I would be there for them. I did not mince words and I voiced my opinion, whether it was liked or not.

I followed, as many of you do, the philosophy of "I'm invincible! I don't need to see a doctor, and have not done so in 24 years. I don't want someone to tell me if there is something wrong with me." Unfortunately I passed on to another life late Friday night, Dec. 6, 2002 at home with my wife, but wanted to share my final wisdom, guidance and advice to my brothers in the industry.

My local superintendents' association meeting was on Tuesday, Dec. 10th, and I was looking forward to that meeting more than any other meeting. I talked almost daily with the superintendent about what and how to do what needed to be done to make the course look perfect. (I was big on grooming and reminded him to take care of the grass in the cracks of the sidewalks: it's unsightly!) The course was in perfect shape and never looked better. I was livid when the weather forecast for that day was rain! This would mean that the other superintendents would either not come or stay to play golf and see the perfection of the golf course. It was immaculate!

As a salesman for turf equipment and golf course sales, I traveled daily, checking not only on my customers and their golf courses, but also on my friends in the industry and their needs. Normally I compile all my orders and submit them

on Monday morning. To take care of my customers and friends, I chose to submit my orders on Friday afternoon instead of waiting until Monday.

In my heart of hearts, I somehow knew I would not be around to either submit my orders on Monday morning or to attend the superintendents' meeting on Tuesday. My friends, customers and co-workers had to be taken care of to the best of my ability, no matter what. That was my way!

My final words of wisdom, personal experience and guidance to my fellow workers in the industry are most sincerely to "do as I say and not as I did." My wife and family have been burdened with an over-abundance of grief, heartache and stress, all of which could have been avoided. Because of my life-long philosophy, I suffered from extreme high blood pressure that was untreated and caused severe heart disease. My wife had to witness the last six minutes of my life after my heart shut down and failed and the rest of my organs followed this natural process. You don't want to have your family and loved ones endure this experience. It is unbearable that my wife had to witness and endure this, and I am sorry.

If I could live my life over, I would abandon the philosophy of not seeking medical guidance. I was probably aware of symptoms and problems, but chose to ignore them. I would now urge all of my brothers in the turfgrass industry to realize they are not invincible and to seek preventive medical advice. Not every visit to a doctor results in catastrophic problems; in today's world most of the problems are treatable and prolong your life with your family and friends. As we all are well aware, the turfgrass industry is a high-stress industry and, unfortunately, extreme stress can cause problems to our bodies. These are treatable and can prevent what I caused.

Remember me fondly and know that you can still call on me at any time... I'll be watching and thinking of you all.

Sandy Hayden wrote this warning as a wake-up call to the friends and colleagues whom jeff loved dearly. jj

He is survived by his wife, Sandra R. Hayden, from Gainesville/Homosassa, one daughter, Stephanie D. Underwood, one son, Benjamin P. Hayden, two granddaughters, Brittany Underwood and Jasmine Hayden, all from Gainesville; his mother, Wilma Hayden, from Elkhart, Ind.; and three sisters, Jennifer Keskinen, from Dallas, Tex.; Janice Hayden, from Elkhart, Ind.; and JoAnne LeClair, from Jacksonville.

As the University of Florida Envirotron held a very special place in Jeff's heart, the family has requested that in lieu of flowers donations be made to the University of Florida Envirotron, IFAS, c/o University of Florida Foundation, PO Box 14425, Gainesville, FL 32604.

Memorial services were held Dec. 13 at Forest Meadows Funeral Home in Gainesville. A reception for family and friends followed the service at Napolitano's in Gainesville.

Mike Cantwell - SW Florida Loses Super Veteran

Michael James Cantwell, 47, of Fort Myers (San Carlos Park), died Monday, Nov. 11.

Mike (as he liked to be called by his friends), got an early start in the golfing industry - right out of high school. He went to work at the Prairie Woods Golf Course in Aberdeen, S.D., leaving in 1977 with his friend and mentor, Wayne Lippold. Mike went to work at the Bonita Springs Golf & Country Club, continuing his "on-the-job" training for a couple of years. Then, Wayne asked him to come to The Forest Golf & Country Club as assistant superintendent to help him grow in the golf course.

In 1988, Byron Cost, president and CEO of WCI, hired Mike to be the golf course superintendent and help develop the Gateway Golf & Country Club. While at Gateway, he made several structural changes to the course, all with the designer Tom Fazio's blessings. He likewise initiated a request to participate in the Audubon Cooperative Sanctuary program, an extremely ambitious undertaking, which WCI eventually made standard procedure. By the time that Cantwell left Gateway in August

Dear Colleagues,

We have all recently lost a fellow superintendent Mike Cantwell. He was a longtime friend. Mike passed away unexpectedly on Nov. 11. He was the superintendent at Gateway Country Club from 1987 through 2000 until he accepted the construction / grow-In superintendent position at Miromar Golf & Beach Club in Estero.

Mike was a dual member of the Calusa and Everglades Golf Course Superintendents Associations. He was always willing to donate his course for a chapter event, along with hosting the Everglades annual Christmas Tournaments.

Mike contributed a great deal to our associations with his generosity and we would like to show our appreciation to him with a benefit tournament to help his family.

The CGCSA & EGCSA are hosting a benefit tournament in Mike's honor on Friday, Jan.17, at Miromar Lakes Golf Course and Grandezza Golf Course. All proceeds (100%) will be put into a trust fund for his children.

Thank you for your support in helping a friend and colleague. Mike will be greatly missed!

*Jim Leiseberg, CGCSA
President, Everglades GCSA*

2000, the program had greatly advanced.

Jerry Schmoyer, formerly with WCI and now heading up Miromar Lakes LLC, asked Mike if he was interested in building their golf course, Miromar Lakes Beach & Golf Club. Mike worked with Art Hills in building the course, and with their talent and expertise, they built a gem, all during severe water restrictions.

Mike was highly regarded as an expert in his field, and was frequently called upon by other superintendents for assistance and advice, and he was always happy to oblige. He had many, many friends and was admired by all who were privileged to make his acquaintance. His is a tragic loss

Mike Cantwell was born in June 1955 to Patrick R. and Elizabeth Cantwell, in Aberdeen, S.D. He was preceded in death by his mother, who died Sept. 9, 2001. He is survived by his wife N.

2002 FLORIDA GREEN PHOTO CONTEST RESULTS

This is part two of presenting the four category winners of the 2002 photo contest. **Category 1 Wildlife on the Course:** includes mammals, birds, reptiles, amphibians.



First Place - "Snackin' on a snag" by Neil Cleverly, The Old Colliers Golf Club, Naples.



Second Place - "The kids' first trip to the club" by Tom Biggy, Bent Tree C.C., Sarasota.

2003 Photo Contest Rules

Category 1 - Wildlife on the course: includes any critter on the course that walks, flies, swims, slithers or crawls.

Category 2 - Formal Landscaping: includes annuals and ornamental shrubs and trees planted in formal beds on the course or club entrance.

Category 3 - Native Areas: includes beds of native plants including trees, shrubs and grasses used in natural-

ized areas to reduce turf inputs and aquatic vegetation plantings used to create habitat and protect water quality.

Category 4 - Scenic Hole: includes any view of a golf hole (panoramic or close up) that demonstrates the scenic beauty of a golf course.

Easy Rules

1. Color prints or slides. Prefer prints. Only one entry per category. There

are too many variables affecting publication quality to permit digital entries at this time.

2. Photo must be taken on an FGCSA member's course. Photo must be taken by an FGCSA member or a member of his staff.

3. Attach a label on the back of the print or slide which identifies the category, course and photographer. DO NOT WRITE DIRECTLY ON THE BACK OF THE PRINT. Each print shall be attached to an 8.5" x 11" sheet of paper using a loop of masking tape on the back of the print. Slides should be in plastic sleeves for easy access for viewing.

4. A caption identifying the category, course and photographer should be typed or printed on the sheet of paper below the mounted print.

5. Judging will be done by a panel of FGCSA members not participating in the contest.

6. Mail entries in a bend-proof package marked PHOTOS DO NOT BEND to Joel Jackson, 6780 Tamarind Circle, Orlando, 32819. Entries postmarked after Aug. 1, 2003 will be automatically entered in the 2004 Photo Contest.

Gwen (Johnson) Burton, Stepson Jessup C. Burton, son Alexander "Alex" P. and daughter Tracy E. Johnson-Cantwell; father Patrick and siblings, mostly all living in South Dakota: Robert Cantwell, Kathleen "Kathy" Lahman (living in New England), Patsy Kwasniewski, Maureen "Mo" Cantwell, Elizabeth Doerr, and Carol Matt. There are many uncles, aunts, cousins, nieces and nephews, too many to list, but Keith Cantwell, a cousin, lives in South Naples and works at the Spanish Wells Golf & Country Club.

A Memorial Service was held Nov. 23 at the Harvey-Engelhardt-Metz Funeral Home at 1600 Colonial Blvd. The family received friends before the service. In lieu of flowers, anyone wishing to assist with the funeral expenses may send their contribution to the "Michael J. Cantwell Memorial Fund" at Sun Trust Bank.

Hard Times

Editor's Note: Superintendents are often proactive agronomically, but tend to be reactive politically. With the uncertain economic times and nervous club members and owners, take some action to show you are doing all you can to ease the financial burden and still try to provide the best playing conditions possible. Here are some things you can share with your upper management or ownership to ride out the rough times.

Base Operating Decisions On Data During Slow Economy

With the possibility of declining revenues and increasing costs, many golf facilities are looking at ways to streamline operations. Before modifying operating practices, budgets or staffing levels, seek advice

from your golf course superintendent. Superintendents can provide valuable information to help make decisions that will keep the golf course healthy and income-producing for years to come.

Using their technical knowledge and experience your superintendent can provide data on the "what if..." scenarios of golf course management.

More specifically, your superintendent can help:

- Prioritize activities that correspond directly to issues of playability vs. those that are purely esthetic.
- Propose a short term, mid-term and budget management.
- Analyze operational standards and adjust them as necessary to meet your goals and budget
- Establish a timetable that delays major renovation projects and other capital outlays.
- Redirect staff to undertake smaller renovation projects, irrigation maintenance, cleaning, painting etc., or projects that were planned for outsourcing.
- Research utility rates and reschedule heavy use utilities, such as water, during off-peak times.
- Control complimentary rounds and put on hold staff events.
- Outline the costs to bring the course back to optimal condition if foregoing planned maintenance is required.
- Provide the costs to hire and retrain employees.
- Recommend additional ideas to generate revenue.

Consider, too, the costs to re-engage golfers and rebuild goodwill if the course does not deliver a quality golf experience. It can be 30 to 40 times more expensive to acquire

new customers than it is to manage existing customers.

Sources: "Budgeting in a Downturn Economy," The Boardroom Magazine, September 2001; Carolinas GCSM; "How to Weather an Economic Downturn" resource packet, GCSM. Credit: Leader Board, November/December 2001

Support Professional Development

In theory, it's hard to argue with the value of investing in knowledge. But when finances are tight, it can be hard to justify training expenses.

Consider the return you will receive for your investment in your superintendent's continued professional development. Your superintendent will strengthen his or her skills in the overall management of the golf course, significantly contributing to the golf facility's overall business objectives. These impacts can be quantified to show the return on investment in monetary value. More effective budget management is a good example of how to measure ROI. Shifting resources for more efficient staff utilization is another example.

Evaluating and quantifying these areas can assess ROI.

- Improved quality
- More efficiencies
- Reduced costs
- Enhanced analytical capabilities
- Reduced turnover
- Better decision-making
- Time savings
- Innovation
- Increased effectiveness

You can quantify these areas using a ROI formula to determine the cost-to-benefit ratio:

$$[(\text{Benefit accrued from training} - \text{Cost}) \times 100] / \text{Cost} = \% \text{ ROI}$$

The costs of training are easy to quantify: tuition or purchase price, incidental expenses, staff time, etc. The tricky part lies in putting a legitimate, well-reasoned number in the "benefit" location - logical, specific and quantifiable - namely, greater revenue or reduced expense.

There are also intangible benefits to investing in training that contribute to positioning your golf facility in the marketplace. These include:

- Increased golfer satisfaction
- Increased staff commitment and teamwork
- Improved customer service
- Improved community image
- Reduced complaints

Consider these benefits when authorizing training funds for GCSAA's conference and show and as your superintendent meets the continuing education requirements to maintain Class A or certification.

Sources: Donald R. "Chip" Levy, Rochelle Organization, Washington, D.C., in the Professional Development Forum Online, June 2002; GCSAA's Professional Development: Building on Success resource packet, 2002.

Credit: GCSAA's Leader Board, November/December 2002

Editor's Note: *If the two tips above seem contradictory in nature consider that the skills needed in controlling costs are more often than not learned in national and regional continuing education seminars. They are also learned by peer networking at local chapter meetings.*

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Gentleman Joe Lee

MARK MY WORDS

To borrow a "Joe Lee-ism," if I were any happier, I'd be twins! On Nov. 2, Joe and Jinny Lee hosted a book-signing dinner party at Palm Beach National for the long-awaited and much-anticipated introduction of "Gentleman Joe Lee", a book about the life and architecture of a man I've known, loved, and respected for over



Mark Jarrell, CGCS

30 years. Our small clubhouse was filled to overflowing with people who feel the same way about this remarkable talent and exemplary human being.

Many admirers, including me, have always felt Mr. Lee has not been given proper recognition for his contributions to the game of golf, and this book will help present and preserve his philosophy and life story in the chronicles of golf history.

The book is just the right size for a cover-to-cover reading in a few hours - 242 pages of beautiful photography by Theresa Airey and flowing text by *Golf Digest* and *Golf World's* Ron Whitten - but you'll find yourself picking it up again and again to digest a seemingly simple design principle or to peruse a beautiful photo of a hole you've played or would like to play. It's a simple and straightforward examination of Joe's life, work, and philosophy without the aggrandizement you'd normally get, given the level of tal-



Joe Lee, center; on the job during the reconstruction of the Banyan Golf Club in 1998. Show here with superintendent Clint Smallridge, CGCS, left and his assistant, Tim Enoch.

ent and accomplishment of the subject. Ego and self-promotion are not in Joe Lee's vocabulary, and would not be permitted in a book about him, no matter how well deserved or adamant his admirers. I'm quite sure the book's title was not so much chosen as it was preordained.

Golf course designer Joseph L. Lee has quietly put up

astounding numbers: 50 years as a designer; approximately 250 original designs; about 500 total projects worked on. If this were baseball, Joe Lee would be a combination of Cal Ripken, Roger Clemens, and Sammy Sosa. Many of the creations credited to Dick Wilson, especially in the later years of his life, are Joe Lee's work from top to bottom, but gentleman Joe would never accept

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Joe Lee, left, with Ron Whitten, senior editor of architecture for *Golf Digest* and *Golf World* magazines and author of "Gentleman Joe Lee, 50 Years of Golf Design" at Lee's book-signing dinner at Palm Beach National GC in November.

An Original Poem

This is an original poem composed by Clint Smallridge, CGCS, Banyan Golf Club, longtime friend and admirer of Mr. Lee. Clint wrote it especially for Joe and read it to the assemblage at the dinner party.

Mr. Joe Lee, A Man Among Men
*Oh what a joy it has been
 To spend a career with such a good friend
 In the Bahamas with just rocks and trees
 You had the answer, get soil from the sea
 The stories you tell are funny indeed
 But contained within there is a lesson to heed
 You always set the standard, a lofty goal indeed
 I knew you were watching, that is why I had to succeed
 When you came to visit at Mullet Bay
 Again you had the answer, move that hotel out of our way
 With Mrs. Jinny and Betty at your side
 You weave beauty and wonder over the country wide
 Golf is your business but people your passion
 Relationships, friendships, business deals all around the world to fashion
 You once told me "Always give the other guy a chance to be a gentleman"
 But it was you my friend that extended the helping hand
 So it's time for special wishes, and only the best will do
 For when it comes to special friends, the very best is you!*

Clint Smallridge, CGCS

such recognition if it meant taking credit from the man who mentored him and launched him into a career he's enjoyed so well these many years.

With more than 100 golf courses in Florida, these comments are not news to the many players who have enjoyed his creations, or to the many superintendents in this state who have had the pleasure of working with and getting to know this extraordinary man.

A quote from his book, "One of the jobs of the chairman of the green committee is to defend what the superintendent is doing," best illustrates why Mr. Lee is so respected and beloved by superintendents. Joe has always supported and respected the work of the golf course superintendent, understanding the difficulties of a job fraught with so many uncontrollable factors.

He once said that had he not had the great fortune of success as a golf course designer, he might have enjoyed the profession of golf course superintendent. How many other golf course architects have had a surprise dinner party given in their honor by devoted and appreciative golf course superintendents, as Joe Lee did in 1990 at Pine Tree Country Club?

Joe's book is not for sale. He and Jinny decided to underwrite the entire cost of publication, but they are requesting a \$50-per-book donation to the Joe Lee Scholarship Foundation, Inc., which annually awards scholarships to the children of employees (or the employees themselves) at Joe Lee-designed golf courses. Requests for books, information about the scholarship fund, or donations, can be directed to P.O. Box 1270, Boynton Beach, FL 33425, or call 561-732-2421 or 561-732-5518. Several pro shops have already received books, and more are scheduled, so you might find one at your nearest Joe Lee golf course.

The recent HBO miniseries, "Band of Brothers" swept the consciousness of the current generation as the story of the tremendous human sacrifice by this band of World War II citizen-soldiers was

that we fulfill our managerial mission requirements.

And in our campaign, we too suffer losses. In 2002 our senses have been assaulted by the loss of no less than seven of our comrades-in-arms: Chuck Almony, Jr., Bill Cowing, Tom Crawford, Chip Fowkes, Joe Konwinski, Mike Cantwell and the last brother to leave us on Dec. 6, Jeff Hayden. Each was known to us in different ways as a class-

Our Own Band of Brothers

GREEN SIDE UP



Joel Jackson, CGCS

told. The miniseries was based on the book by Stephen Ambrose, who chronicled the lives and battles of the members of Easy Company, 506th Regiment of the 101st Airborne. The show earned Golden Globe and Emmy Awards for the Best Miniseries in 2002. It is a tale of how common men performed uncommon acts of bravery and valor. It is a story of how a diverse cross section of personalities became one of the most highly trained and efficient units in military history.

We learned the hopes and fears and strengths and weakness of each of the true-life characters as they made their way from their training camp in Toccoa, Ga. to the fall of the Third Reich in Germany. Along the way, life happened. Choices they made enriched or ended their lives. They bled and died for a noble cause, but in the end more for each other; and they would never be the same.

Brothers, born in combat, they would watch their family numbers shrink after each engagement; the losses taking their emotional toll, making each man question his purpose and his future.

Our modern-day sacrifices are not so grave, but superintendents have a common bond making us a Band of Brothers in many respects. We face so many common challenges in terms of growing and grooming golf's playing surfaces that we share many of the same emotions and stresses associated with the business. We have all had to make a commitment of time and effort to ensure

mate, mentor, leader, friend, contributor, volunteer, associate, buddy, pal and peer. Their spheres of influence range from local to state and national in nature and each was just as important in its own context as their lives interacted with ours in common concerns and achievements.

The title, "Band of Brothers" came from Shakespeare's play *Henry the Fifth*. In honor of our fallen comrades I share with you an edited version of the passage which gave rise to the title:

*He which hath no stomach to this fight,
 Let him depart; his passport shall be made...
 We would not die in that man's company...
 But he that outlives that day shall see old age...
 And strip his sleeve and show his scars...
 And say, "These wounds I had on Crispin's Day."
 ...This story shall the good man teach his son;
 And Crispin's Day shall ne'er go by,
 From this day to the ending of the world,
 But we in it shall be remembered;
 We few, we happy few, we band of brothers;
 For he today who sheds his blood with me
 Shall be my brother..."*

Though our daily battles are far less rigorous than those heroes of another age, they are no less a measure of our abilities and our loyalties. In that regard, we owe it to each other to be prepared, to be competent, to be diligent and to make sacrifices so that our unique profession lives on in honor. We few, we happy few, we band of brothers. For those whose paths I followed and for those who have walked in my footsteps, living and gone - they are my brothers forever.



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