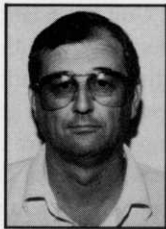
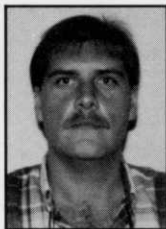


# WANTED



Dick Campbell



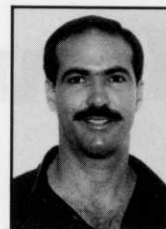
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# Turf Industry Roundup

## Brookside Labs honors former FGCSA president

Tom Burrows, CGCS, former president of the Florida GCSA now in private practice as an agronomist specializing in soils analysis, was honored by Brookside Laboratories for achieving the top sales volume among the company's international association of independent consultants. Burrows also was recognized as a certified consultant at Brookside's annual convention in Indianapolis last August.

**John R. Smith** is the new president of Vigoro Industries' Specialty Products Division. Irv Stacy remains vice president of the Winter Haven-based company which markets proprietary fertilizer products under the brand names of Par Ex and Woodace.

A graduate of the University of Notre Dame, Smith brings 26 years of marketing and sales experience to the 15-year-old Par-Ex brand.

**Century Rain Aid**, which operates wholesale distributorships of sprinkler, irrigation, landscape lighting and drainage equipment in seven Florida locations, has expanded its Fort Myers operation. The new distributorship at 6281 Arc Way not only doubles its inventory capacity but is located in a

commercial area with minimum traffic congestion.

**Clubmaster Golf Course and Country Club Software** of Fort Lauderdale has merged with Mini Business Systems, Inc., of Southbury, Conn. Clubmaster offers specialized golf and country club software including modules for club billing and receivables, golf shop operations, restaurant and snack bar operations, personnel, and grounds maintenance. Mini Business Systems offers the Profi'C Business Series of software through a network of 50 dealers in the U.S., Canada, United Kingdom and Europe. The new firm will be known as MBS Clubmaster.

**The USGA Green Section** has added a technical communications manager and an environmental specialist to its headquarters staff in Far Hills, N.J.

Dr. Kimberly Erusha, formerly an extension associate with the University of Nebraska's integrated pest management program, will coordinate the flow of technical information to the 15 Green Section agronomists and the 7,100 member clubs and courses.

Nancy Sadlon, previously a supervisor with an environmental consulting firm in Laurence Harbor, N.J., will coordinate the USGA's education activities, especially the Audubon Cooperative Sanctuary for Golf Courses Program conducted with the New York Audubon Society.

The USGA also has named

Jane F. Swiggett manager of personnel administration.

**Michael T. Russell** has joined the National Golf Foundation as senior project director within NGF Consulting, a Foundation subsidiary specializing in golf course development services. A graduate of the University of Massachusetts (B.A. economics) and Oklahoma State University (M.A. geography), Russell most recently was a land-use analyst and site evaluator for the consulting firm, Howard L. Green & Associates of Troy, Mich.

**Exhibitors** and visitors to the International Golf Course Conference and Show in Las Vegas will have the chance to preview the annual marketing research report, *Buying Habits of Golf Course Superintendents*. The report was published by the Center for Golf Course Management, a subsidiary of the GCSAA, which sponsors the annual trade show.

The report contains exclusive information on maintenance and capital expenditures, equipment inventories, customer satisfaction and course and superintendent demographics. Significant statistics are reported by state.

The preview will be from 9 a.m. to 5 p.m. Feb. 12 in the East Meeting Room B-1 at the Las Vegas Convention Center.

**The Golf Course Association** has changed its name to the National Golf Course Owners Association. The organization provides services to owners and operators of profit-oriented golf facilities that are open to the public, including more than 50 from Florida.

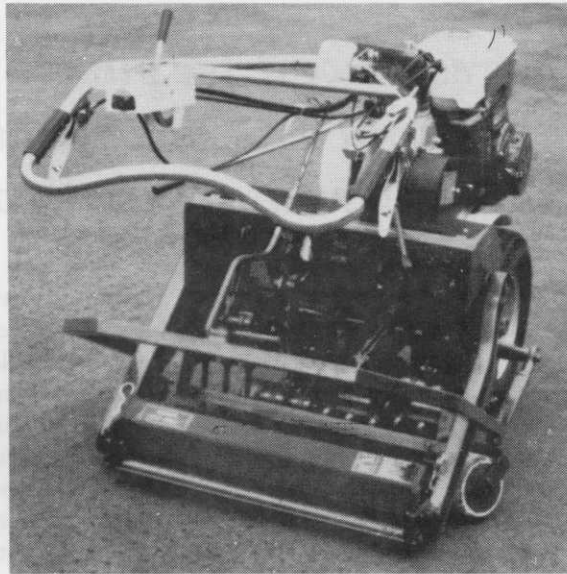
### Turf Industry Roundup

Companies doing business with golf course superintendents in Florida are invited to submit their news releases to The Florida Green, c/o Janlark Communications, 1206 Kimberle Court, Auburndale, FL 33823.

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# No more wrenches!

*Variable frequency drive pumps have been around for about a decade but are just now finding their way onto the golf course.*

BY  
KEVIN KNIGHT

**W**eston Hills Country Club opened in Fort Lauderdale Oct.

1. Although this spectacular development designed by Robert Trent Jones, Jr. has many unique features, it is the course's pump system that truly breaks new ground in Florida. Its variable frequency drive system uses less energy than conventional systems, usually eliminates water hammer and can potentially reduce course maintenance.

Superintendent Bob Drake was unsure about VFD technology, even though it has been used on Texas and California courses for several years.

"I didn't have any experience with VFD technology before this," said Drake, who has been working in the industry for 22 years.

"I was skeptical because it was a new animal and

because we have so much lightning which I thought could hurt the system's computer controls."

Since installation in the summer of 1989, however, Drake's system has "... run like a champ," he said. "We haven't had any problems so far. The protection they have these days for electronics is much better than what we used to have. And changing performance now is a piece of cake. In the past we changed (pilot valves) with a wrench. Now we make changes on the computer. No more wrenches!"

Another superintendent impressed with this new technology is Dan Jones, who has been with Banyan GC in West Palm Beach for 11 years.

"We're in the process of changing our irrigation system and pump station," he said. "I'm looking for a 25- to 30-year investment so I want to get the most for the club's money. The more I read about VFD the



*When Gator Creek Superintendent Mark Todd checks his VFD pump system, he reads the digital screen on his operator interface device (OID) and easily scrolls through complete diagnostic and historical information stored in the system.*



Most VFD pump systems use programmable logic controllers to store and manage information. The PLC above stores 165 pages of powerful computer code and can do the work of 99 conventional timers and 372 relays, such as those at bottom right of photo.

more I liked it. We decided to recommend it to our board of directors for several reasons.

"First, it saves power. We figure the system will pay for itself in six to seven years

just on electrical savings.

"Second, there's no (pressure regulating) valve in the system. It's all variable speed so the pump will deliver what you need very precisely. That prevents water surges so we

won't have pipes blowing out. Broken pipes cause a mess, they're inconvenient to members, it takes labor to fix them, they're an eyesore and you can't water the course when one is busted.

"If you add those savings in, there's no telling how quickly this thing will pay for itself."

According to John Swindle, a Tampa-based sales engineer for Flowtronex International which produced and installed the Weston Hills pump station and several others in Florida, VFD technology combines the dependability of conventional systems with the benefits of computer controls.

"VFD systems are really only new to the golf course industry. We've spent more than eight years making them for industrial applications and installing them in really harsh environments like the California desert and northern Alaska. In fact, worldwide, there are more than 100,000 VFD installations," said Swindle.

"The easiest way to picture the difference between conventional pump systems using pressure-regulating valves and VFD systems

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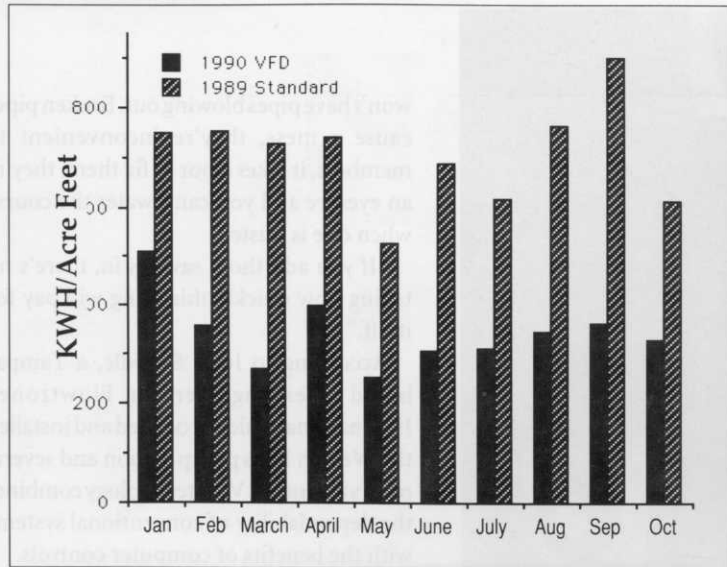
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Since switching from a conventional pump to a VFD system in 1989, energy savings averaging 52 percent have been recorded by Ed St. George of Sunrise CC in Rancho Mirage, Calif. This chart compares the amount of energy required to pump an acre foot.

down is to hit the brakes or kill the engine. Imagine what that means with a pump system. Any decrease in water pressure must occur at the control valve which acts like a set of brakes and wastes energy. Some systems use extra pumps and motors but they can cycle on and off, decreasing their useful

with computer controls is to think of cars.

“A conventional system is like a car without a gas pedal. The motor either runs full bore or it’s turned off. The only way the driver can slow

lives.

“VFD systems, on the other hand, are like cars with cruise control. Computers and powerful software gradually speed things up or slow them down. Energy isn’t wasted slamming water against a valve. In fact, VFD systems don’t even have pressure-regulating valves. Water hammer is nearly eliminated because these systems have a ‘soft run’ feature which prevents sudden changes in speed.

According to Swindle, whose company also makes conventional systems, you can even *hear* the difference. “Stand in one pump house with a conventional system and one with a VFD system. When a conventional system kicks on, it goes right to full speed. Sometimes you’ll even hear motors cycling on and off. With VFD, it’s like cats’ purring because the motors and pumps gradually change speed.”

Because VFD technology is so new to the Florida market, very little data on cost

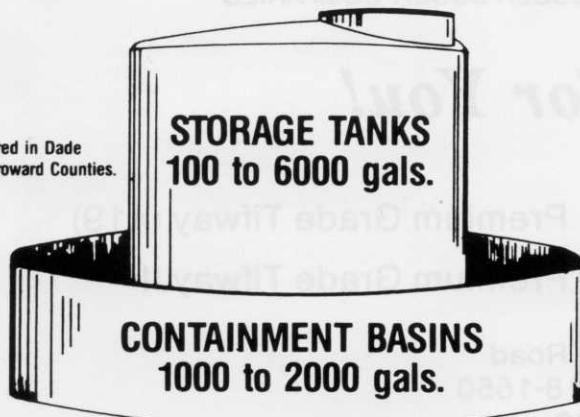
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savings is available locally. However, several managers and superintendents in California have tracked the performance of their VFD systems for years. Ed St. George has perhaps maintained one of the most detailed reports as manager of Sunrise CC near Palm Springs, Calif.

"Until we installed a VFD system in the summer of 1989, we had a conventional station with three 75-horsepower motors and a 40-horse jockey pump," he said. "Rather than repairing it, we elected to get a new system with the same size motors."

"My file for June 30, 1990, for instance, shows a 55-percent saving in energy costs. That's a cost saving of \$4,000 per month. Right now we're looking at a two-year payback and so far we haven't had any problems with the system."

Perhaps the biggest concern about VFD systems is service. Technicians and maintenance personnel familiar with conventional stations generally hesitate touching the controls on a VFD system. According to Flowtronex's Swindle, however, that shouldn't be a concern since service is always available within 24 hours.

"Properly designed VFD systems with solid-state electronics rarely go down. But if they do, automatic backup systems should keep things running until the problem's corrected," he said. "Many of these systems can actually be diagnosed over phone lines using computer modems. Technicians on the other end can check the computer memory, determine what caused the problem and quickly correct it by making

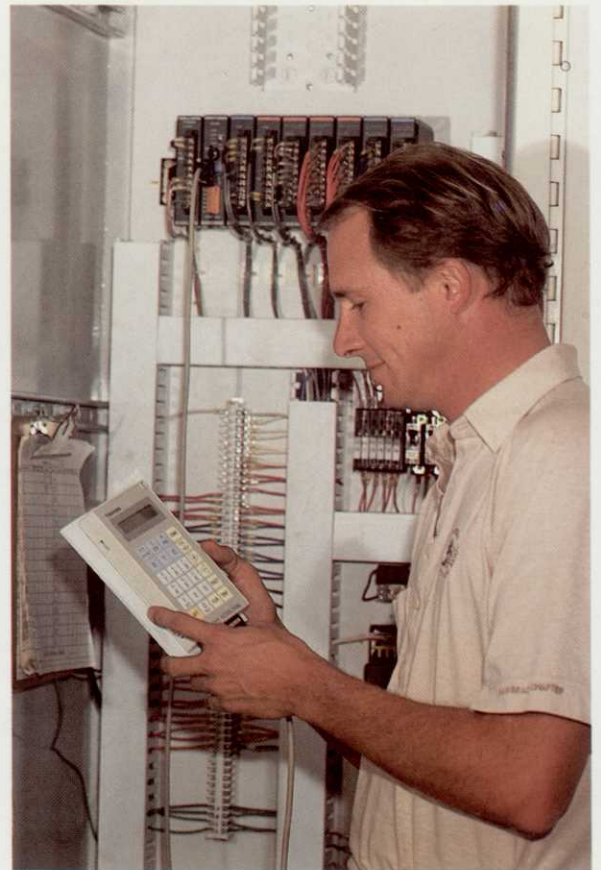
some software changes."

Although no service calls have been needed since a VFD system was installed at Gator Creek CC in Sarasota this past July, superintendent Mark Todd is interested in seeing how it continues performing.

"I'm very pleased with it so far," said Todd, who graduated from the Lake City Community College golf course management program and is a 10-year industry veteran. "It has let us maintain lower line pressures (60 psi constant pressure) and reduce irrigation breaks. I think this is going to be the way to go in the future. We're getting tighter restrictions on water use and utilities are looking at us to be more efficient."

Those thoughts were echoed by superintendent Larry Livingston who originally suggested using VFD technology at Gator Creek before moving to River Hills CC in Palo Rito.

"Each golf course and situation is different but in the circumstances at Gator Creek and most other courses, I believe that VFD is the way to go. One of the things that gave me a lot of confidence is that they're using them in a lot of municipalities. I've got a friend in the utilities business and he says it's all they use and they don't have any



Weston Hills Superintendent Bob Drake uses his handheld OID to "see" inside his VFD pump system.

problems with them."

For a growing number of golf course professionals in Florida and other states, it seems that VFD technology can help them remain competitive while reducing a variety of costs and maintenance headaches.

Kevin Knight is a publicist based in Dallas, Tex.



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# The Green Pages

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

## Don't ignore any notices from state

Two important things are taking place within the SARA Title III Program:

- Expect more enforcement activity. The State Emergency Response Commission will be working closely with the EPA to administer penalties to facilities which are in violation of the provisions of the Title III program. The penalties in this program can be substantial.

- Expect your facility's name to come up eventually if you are using Extremely Hazardous Substances (list is available from Burt McKee, UAP Florida, 813-621-4433). If you receive a Notice of Violation from the state or any other paperwork that gives a response date, *do not ignore it!*

If you do not use the chemicals or if you do not meet the threshold, then let the state know that. Once a response date has passed without a response from the facility, there is a good chance a penalty will be invoked.

- FTGA

## State provides help dealing with OSHA

Do you need help providing a safe workplace? Would you like assistance in developing training and safety programs? The state of Florida provides a service designed to help companies deal with OSHA requirements.

The program is called the 7CI program. For more information, call 904-488-3044.

-FTGA

## EPA Proposes Pesticide Storage Regulations

As authorized in the 1988 amendments to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the U.S. Environmental Protection Agency is proposing regulations on the storage of pesticides. These regulations are scheduled to become final in late 1991, with compliance effective two years later.

The goal of the storage regulations is to provide minimum, reasonable federal storage standards. The overall objectives of the storage regulations are to minimize human exposure, improve fire protection, ensure safe and effective spill management and cleanup, and codify good management practices.

These proposed regulations contain minimum standards for all facilities that store more than 11,000 pounds (5,000 kilograms) of pesticide products. Industry surveys of facilities and practices reveal that many agrichemical dealers and distributors meet or exceed the standards in the proposed

regulations. The intent is simply to achieve compliance by the segment of the industry that does not currently meet these minimum standards.

To meet the general standards, pesticide storage facilities must be:

- Secured and posted with warning signs;
- Floored with sealed concrete to prevent seepage through hairline cracks;
- Equipped with electricity, water and adequate ventilation;
- Equipped with two sets of personal protective clothing for spill cleanup or other emergencies;
- Built to local fire protection codes;
- Provided with secondary containment for bulk storage.

The proposed regulations also require specific operational procedures for all storage facilities. These procedures include accident prevention, inspections of containers, and employee training.

A key issue for the agency is determining who must comply with these regulations. Currently, the agency is proposing to exclude any farm, commercial applicator or other facility that stores less than 11,000 pounds of pesticide products.

Another issue is the requirement for training. Concerns have been raised by industry representatives during recent field trips that EPA regulations potentially overlap with OSHA regulations, causing confusion, compliance difficulties and duplicative training time for their employees. If employers comply with OSHA training requirements, should they be exempt from EPA training requirements?

## Reference Library

Recently released professional literature



*A Manager's Guide to Environmental Compliance*, Florida Chamber of Commerce. Lay-language overview and explanation of federal environmental laws and regulations prepared specifically for managers and supervisors to help avoid costly penalties, legal fees, down time and court costs. \$37 plus UPS shipping; 800-940-3034 or 904-222-5520 (FAX).



## Seeking the unvarnished truth

...Charlatans abound whenever an emotional issue arises which deals with unknown, potentially hazardous materials. These folks are usually better speakers and writers than knowledgeable scientists and do not have to prove anything. When faced with data from university research, they simply say that it is tainted by the influence of the anti-environment agrichemical combine. Period.

To cope with this kind of reaction, the USGA Research Committee has embarked on a three-year national research program to help us:

- Understand the effect of turfgrass pest management and fertilization on water quality and the environment.
- Evaluate alternative pest control measures in integrated turf management systems and
- Determine the human, biological and environmental factors that golf courses influence.

The intriguing thing about this project is that it seeks the unvarnished truth. If

our present practices are faulty, golf will have to clean up its act.

In addition to information gathering, a manual will be developed with the GCSAA to provide consistent information on integrated turfgrass management practices that ensure environmental quality. The program is not meant to cast doubt on recent research efforts, but to expand the scope of research and involve all areas of the country.

Local-level research is necessary to help us cope with problems unique to specific areas. These programs need and deserve the support of golf and golf course superintendents' associations. National-level funding is becoming more difficult. Maybe this is the time for everyone to become involved on a more personal basis.

*-James Latham, Director, Great Lakes Region, USGA Green Section*

## Private sector does it better

...We want (the Clean Air Act) to have a positive effect on our environment and to make our country a healthier place to

live. But we don't need to bankrupt American businesses in the process. I will monitor the impact of these changes to the law — the first adjustments to the Act in 20 years — to be sure that they are achieving their intended goal of a cleaner environment as efficiently as possible.

Our environmental consciousness has reached the corporate level as well. Witness McDonald's recent announcement that it will replace styrofoam containers with biodegradable packaging. This reflects the American consumers' demand for more responsible treatment of our planet and their willingness to sacrifice convenience for environmental concerns.

It is interesting that the American people rejected the more extreme environmental initiatives on the Nov. 6 ballot all across the nation. It would appear that they have concluded once again that the private sector can do the job better than government bureaucracy and regulation.

*-U.S. Congressman Andy Ireland, Report to Florida's 10th District, December 1990*

The agency welcomes comment on these issues, the proposed storage regulations and their potential impact on the golf course industry. Please direct these comments to Rob Denny, Janice Jensen or Tracy Bone, Pesticide Management and Disposal Staff, Environmental Fate & Effects Division (H-7507C), Office of Pesticide Programs, EPA, 401 "M" Street SW, Washington, DC 20460; telephone 703-557-5288; fax 703-557-9309.

*Column by Robert Denny, Office of Pesticide Programs, U.S. Environmental Protection Agency in GCSAA Government Relations Briefing, October 1990. Reprinted with permission.*

## GCSAA Government Relations Briefings

*(Every month, members of the Golf Course Superintendents Association of America receive a two-page briefing on government relations developments affecting the golf industry. Below are summaries of the topics covered in the last three briefings. If your superintendent is a GCSAA member, he should have copies of the complete briefings on file. If he isn't, call 1-800-GSA-SUPT for membership information.)*

• What do you do with old, used tires? Almost 60 percent of worn tires are disposed of illegally.

• Florida is one of several states that has launched a pilot program under the Endangered Species Protection Act.

• An international treaty will halt production of halon, a popular fire-fighting agent, by the year 2000. Superintendents considering halon systems for their pesticide storage buildings or other club facilities should stay aware of existing options.

• Until Dec. 22, EPA's underground storage tank efforts have centered on after-the-fact cleanup; now the agency intends to step up compliance enforcement.

• Users are demanding better, more uniform material Safety Data Sheets (MSDS's).

MSDS's, which are provided by manufacturers for each of their products, are a vital part of golf course superintendents' Hazard Communication Programs.

• The U.S. Supreme Court refused to review a case in which a developer was sentenced to a three-year prison term and fined \$200,000 for illegally dumping landfill in a wetlands area.

For more information on wetlands, contact the U.S. Fish and Wildlife Service, Department of Interior, 1849 C Street, NW, Washington, DC 20240.

• The Netherlands plans to reduce chemical pesticide use by 50 percent by the year 2000.

**H**appy New Year to one and all, and welcome to the middle of our “winter season” here in Florida! That time of year when our northern members have retreated from the ice and snow to join with thousands of others who flock to our courses in the winter to make it our “busiest season.”

I keep using the word “season” because my attention was brought to focus on that word last October. I had the good fortune

to be invited to speak at the Wisconsin GCSA Turf Symposium in Milwaukee and got to meet a lot of northern superintendents.

# Season?

## WHAT Season?

I overheard several congratulating each other as they celebrated the end of another “golf season.”

I thought to myself, “We have hurricane season, love bug season, holiday season, thunderstorm season, snowbird season, and summer tourist season, but a ‘golf season?’ Shoot, we have ‘golf season’ all year!”

They use the winter hiatus to take time off and recharge their batteries and get ready for next spring. They couldn’t imagine having to keep after it all year long. We discussed that fact and they asked me, “How do southern superintendents stay pumped up all year?”

I explained that in cooler months, our turf growth slows down and, while we are very busy with play, some turf management routines are a little more relaxed. But as I thought about that statement, I realized that more and more courses are overseeding wall to wall or using more fine-bladed

grasses on their greens like bentgrass and poa trivialis which call for more care and concern. So here we are in the winter up and down the state, managing various degrees of dormant, semi-dormant, or actively growing bermudagrass and all sorts of combinations of overseeded golf courses. We just can’t wait for spring when we groom out the overseeding and watch as the bermudagrass goes into high gear.

So how do we cope? How do we stay pumped up all year? We take a day off once a month to attend a local superintendent chapter meeting, or we leave early once and awhile to play a round of golf with our peers or, if we have the support of our clubs, we may be able to take a week off in February to attend the GCSAA Turf Conference and Trade Show. So, over the span of the year, we might take off a total of a month scattered throughout the year. This doesn’t count vacation time, which often is taken only one week at a time.

Unlike our northern colleagues, who drain their irrigation lines and equipment radiators and lock up shop for two or three months, we must take our breaks in little chunks. In fact you can always tell the Sunbelt Superintendents at the GCSAA Conference: they’re the ones on the phones during seminar breaks, calling back to their assistants to see how things are going.

Quite frankly, when superintendents take these golf-related breaks, they’re just out there getting more training and information that will help them do a better job. We never really get to forget about the job for a long time.

Think about that the next time your superintendent asks for some time and travel money to take a little break during Florida’s “golf season.”

## Green Side Up



*Joel D. Jackson*

Joel D. Jackson, CGCS