

The only thing dictated by day-of-the-week watering schedules is when you water, not how much you water. Some water district officials have admitted that this method did not really save much water. Instead it forced water users to overwater on specific days to try and keep the root zone moist until the next scheduled irrigation.

Overwatering brings on another set of problems including poor playing conditions and poor turf health often requiring application of more chemicals to treat weeds and disease.

For those whose pumping capacity was limited or who had sandy soils, it encouraged - or rather forced - them to water off-schedule just to keep their turf alive and functioning. A rule or law that forces someone or a company to break the rules just to survive is plainly a bad rule.

I heard some superintendents documented their reduction in overall water use to cover themselves, but they watered when they had to, not on the arbitrary day of the week. They met the intent of the law, water conservation, in spades, but they violated the letter of the law which is flawed by not addressing practical agronomy or horticultural requirements. Their message is: We can and will cut back on amounts used during droughts, but let us apply the water when we need it. Enforcement is possible through pumping reports.

To the credit of many superintendents and the water management districts, they have made good strides in working out practical solutions to

these problems. This is a never-ending process and it is critical that superintendents keep their owners advised of the issues and solicit their help in educating politicians, water management districts and the general public about golf's true impact on the community.

#### TALE OF TWO COURSES

## High & Dry or Low & Wet, Use Common Sense

The Highlands Reserve Golf Course is located in northeast Polk County just off US Hwy 27 on the sandy ridge that runs from Ocala to Sebring, and it's also near the eastern boundary of the Southwest Florida Water Management District. Superintendent Dave Datema, CGCS recently moved over from Disney and arrived in time to feel the full effects of the drought on this high and dry layout. Dave's current water source is ground water, but a reclaimed water line is being installed along US 27 from Haines City to the intersection of U.S. Hwy 192. The amount of reclaimed water Dave will have to use is unknown at this time, but hopefully he will be able to pump less ground water in the future.

Meanwhile over in Winter Park, Stuart

Leventhal's Interlachen Country Club was built on an old peat bog that wasn't suitable for residential development. Interlachen is located right next door to the local water treatment plant and so Interlachen irrigates totally with reclaimed water, but does have a backup well in case of emergencies. Drainage and percolation are polar opposites for the two courses and yet the management of the irrigation is based on the same concept - common sense.

Highlands Reserve drains so quickly that, during tropical storm Gabrielle last August, Datema's crew was mowing fairways when the eye of the storm passed over. That was after six inches of rain the previous night and morning. Over at Interlachen when summer rains kick in, Leventhal may not irrigate the fairways for four to six weeks. In fact they often have to go out and trim the grass back off the heads from lack of use.

Under normal conditions Highlands Reserve will pump 350,000 - 375,000 gallons per irrigation cycle and Interlachen will pump an average of 155,000 gallons. Both superintendents are addressing the needs of the turf and maintaining good playing conditions, and both use weather forecasting data to adjust their nightly watering to reflect the constantly changing conditions.

With the sandy conditions at Highlands Reserve, Datema has had to amend his native-soil greens to slow down the water percolation since there is no perched water table effect.

"While the greens drain super, I cannot



## SHOW AN OLD COURSE NEW TRICKS

The University of Florida recently renovated its golf course, and it needed a high-quality fertilizer to help get its turf into shape. The obvious choice was **GreenEdge®**.

Unlike other organic fertilizers, **GreenEdge®** contains slow-release potassium to enhance root growth and increase stress tolerance. It also acts as a bioactivator to increase beneficial microbial activity.

**GreenEdge®**'s unique multi-release mechanism provides both initial and extended release of nutrients through hydrolysis and microbial degradation over an 8-12 week period. It also minimizes environmental impact by eliminating leaching and runoff.

Give **GreenEdge®** a call at toll free 877-GREEN30 and let our products work wonders for your course.



# GreenEdge®

**GreenTechnologies, Inc.**

\*Available in:  
-Standard and Greens Grade  
-15-5-10, 8-1-8, 6-2-12 or custom  
blended to your specifications  
\*Patent Pending

605 N.W. 53rd Avenue, Suite A-15, Gainesville, FL 32609, Toll Free 1-877-GREEN30, Fax: 352-379-7749, [www.green-edge.com](http://www.green-edge.com)



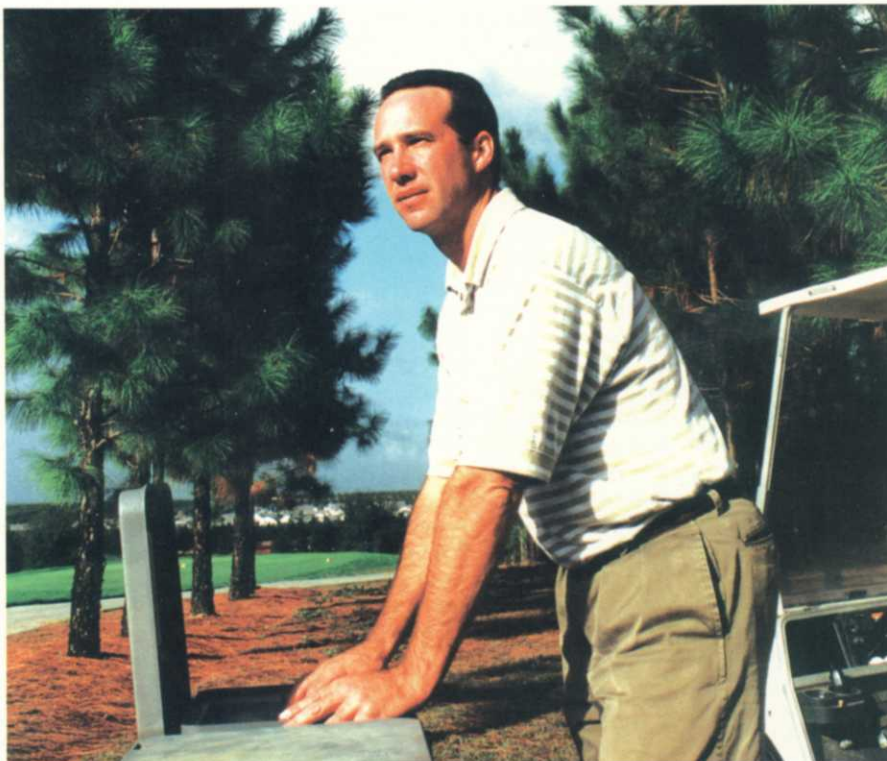
keep the root zone moist without daily watering," says Datema. "This past spring I aerified with 1/2-inch tines on 2x2 spacing, removed the cores and topdressed with a 70/30 sand and peat mix and some granular LESCOFlow wetting agent. We dragged that into the holes and found we have helped some of our chronic hot spots to disappear and maintain better turf cover."

Over at Interlachen, Leventhal has no real option to amend the heavy soil under the fairways. His salvation has been an upgraded irrigation control system.

"Going to the Rainbird Cirrus control system is the best investment we have made," Leventhal says. "With the precise timing control of the computer, we have been able to micromanage our heads and regulate the playing conditions much better than the old electro-mechanical dials which could be off minutes plus or minus."

Both superintendents put irrigation monitoring as a high daily priority, and the superintendent, assistant or irrigation technician inspect, monitor and make changes as needed. To the trained eye, uneven dew patterns in the morning reveal the onset of dry conditions or malfunctioning sprinklers or maybe even a zone or system failure. Wet spots are clues to leaks and stuck heads. Later in the day foot printing (collapsed blades) and gray colored turf are sure signs that wilt conditions are setting in.

Special projects, meetings, repairs etc can take the primary irrigation observers off task on



Dave Datema, CGCS, superintendent at Highlands Reserve GC, adjusts his irrigation program daily to allow for changing conditions and turf stresses. Photo by Joel Jackson.

## Computer-Exact Custom Mixes. Every Order. Every Time.

- All Loads Scaled
- Soil Analysis Available



- Next Day Service
- Volume Orders

Visit our website at [www.golfAg.com](http://www.golfAg.com)!

### Traps Installed to Spec.



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

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

**GOLF AGRONOMICS  
SUPPLY & HANDLING**

Serving all of Florida

(800) 626-1359  
(941) 955-4690 Fax

any given day, so observation and monitoring is a team effort by the whole staff.

The person who cuts cups is also trained to report wet and dry conditions in the soil plugs taken when moving hole locations on the greens. Other crew members, especially equipment operators, are trained to report damaged heads and wet or dry areas.

Both superintendents employ wetting agents to help the plants take up water more efficiently. At Interlachen the heavy soils can be induced to percolate better and at Highland Reserve they help the quick-draining soil from becoming hydrophobic.

Datema says, "We make a wall-to-wall wetting agent application through our fertigation system about once per week. We also make applications to greens and tees using our portable sprayer. In fact, if rain is forecast we specifically time those applications to help the rainfall penetrate and not just run off."

While Interlachen is not impacted by water restrictions with its reclaimed water source, Highlands Reserve is in a more precarious position.

"I understand the intent of water restrictions during drought conditions, and I make sure we conserve water," Datema says. "When directed or asked to cut back, I cut back, but in all honesty in the performance of my job to manage our turf-grass, I have to fudge on the day-of-the week schedules, but I feel like I am within the rules that

allow for watering to prevent heat stress.

"We normally run 20 minutes per fairway head per night, assuming no rainfall help. With restrictions in force, I can cut that time by 66 percent to 7 minutes per station and thus save water, which is in keeping with the intent of the restrictions. But I cannot keep the root zone moist in this sandy profile by simply cranking up the time on the fairway heads and only watering one or two days per week.

"The soil drains so fast I'm just wasting the water. It makes more sense to put out less water overall, but more often when the plant needs it and can use it. Compounding the problem is our high nematode counts in this old orange grove location. They keep the grass roots short so they can't take up more water even if I increased the times."

Both superintendents agree that people in the industry have gotten more water-wise over the years especially with the advancements in the technology. As Datema says, "There are abusers in every business and I'm sure there are some folks out there who still overwater out of habit or ignorance or a fear that using less will jeopardize their jobs. But most superintendents have tried to live within reason while respecting the intent of restrictions."

One of the best examples of being water-wise was observed when I visited Olde Hickory C.C. last year for a cover story. Instead of

maxing out his run times during periods of no restrictions, John Stach knew that restrictions would invariably return, so he kept his turf hardened off and learned to produce good playing conditions with less water. This is a lesson every superintendent needs to learn in the coming days of water shortages whether they are real or political.

To that end, every superintendent needs to discuss his current irrigation management program with his/her ownership. The owners need to take responsibility for how the superintendent proceeds, especially during water restrictions. It is not good stewardship or responsible leadership to merely tell a superintendent, "Keep it green or else." During droughts, club owners and members need to expect firmer, faster and temporarily off-color turf. Each club should make every attempt to reduce overall water use during droughts and document the savings of water.

As Datema puts it, "The basic tools of turf management have always been irrigation, cultural practices and chemicals and fertilizers. When control of our most important tool, water, is taken out of our hands, it's like trying to manage the course with one arm tied behind your back. We need a good, common-sense approach to water conservation and not some convenient arbitrary rules that don't address the root of the problem."

Joel Jackson, CGCS

# South Florida Grassing, Inc

Over 35 Years in the Grassing Industry

**TifSport • SeaIsle**  
Certified Seashore Paspalum

**Sod, Sprigs and Rolls available**

- We provide reworking and planting services for fairways, tees and greens
- Our grass is grown in Hobe Sound on gassed, sand-based soil
- Hydro-mulching, grassing and mulching also available

**Tifway 419**

**TifEagle**

**Tifdwarf**



**Certified Producer**

Southern Seed  
Certification Association

**(561) 546-4191**

**www.southfloridagrassing.com**

**800-483-4279**