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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 our water use as much as we can. But they watered on specific days to try and keep the root zone moist until the next scheduled irrigation.

For those who 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 our water use as much as we can. But they watered on specific days to try and keep the root zone moist until the next scheduled irrigation.

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..."
keep the root zone moist without daily watering,” says Datema. “This past spring I aérised 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 stack 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.

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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 turfgrass, 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

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Elevate to Irrigate Temporary Nursery

Eric von Hofen, director of agronomy at Calusa Pines Golf Club unquestionably had his hands full when he accepted his current position at the recently opened Hurdzan/Fry-designed golf course in Naples. The golf course, which is certain to receive accolades for its dramatic design, will definitely also catch the eye of many for the extensive landscape that complements the 18-hole layout. According to von Hofen, over a million dollars of landscape was installed during the construction of the golf course, for which he was responsible for the placement, and survival. The species that were planted included live oaks, cabbage palms, slash pines, palmettos, and hundreds of thousands ornamental grasses, all of which blend in nicely to the existing flora giving the perception that the course has been in place much longer than it has.

With the ownership of Calusa Pines providing the extensive funds that were needed to construct the golf course and the facilities, it was expected for all parties involved to be diligent and not allow any waste to occur. To help assure the survival of the vast quantity of containerized plant material, von Hofen directed the construction of a temporary holding area where all landscape material would be delivered and receive immediate irrigation. A simple, inexpensive quarter-turn ball valve controls water flow to each sprinkler. Total cost of temporary irrigation system was less than $100 to protect huge investment in plant material. Photo by Darren Davis.

A temporary overhead irrigation system was installed. To accomplish this, six pine trees that recently had been discarded from the golf course clearing process were limbed up and cut to a length of approximately 35 feet. These straight tree trunks were then buried to a depth of ten feet, leaving approximately 25 feet of exposed trunk. A two-inch PVC line was attached on the side of each trunk leading to the top where a full circle Toro 670 irrigation head was secured. Each head can be isolated at the base of the trunk with a quarter turn ball valve. The trunks were placed in a grid, three per side and approximately 60 feet apart.

The water was needed prior to the installation of the computerized irrigation system on the golf course so originally a portable pump was used to supply water from a nearby lake. However, once the irrigation system was in place, a "T" was added in an adjacent main line so the system became a little easier to operate.

Being overhead, it was easy for von Hofen and his staff to see from a distance and know that it was in operation which gave them peace of mind knowing their concentration could be given to other necessary tasks. The end cost of the entire system was less than $100 due to the fact that the six irrigation heads went into inventory for future use on the golf course leaving the only true cost being the discarded PVC pipe and PVC quarter turn ball valves.

Darren Davis is director of golf operations, Olde Florida GC; 941-353-4441; fax 941-353-5947; darrenjudddavis@aol.com

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BENHAM'S BEAT

Other Shoe Drops: IFAS Budget Cuts Go Deeper

By Donald Benham

The University of Florida has been told to cut another $2 million after already cutting its budget by $2.1 million. Dr. Mike Martin, vice president for agriculture and natural resources, has sent a letter outlining the new reductions. In other words, the other shoe has dropped. Several of these reductions will have direct, immediate effect on all of us. For example the closing of three REC's, restructuring of two more, closures and restructuring of selected campus research programs. To quote Dr. Martin "Be forewarned, we will have to reduce or eliminate programs, if we are to keep our commitment to excellence and some very productive, loyal and long-serving staff members will be laid off."

Did you know that Ft. Lauderdale REC is part of the group being looked at for restructuring or closure? What can we do about it? Obviously writing, E-mailing or faxing your local legislator lets them know how you feel. Talk to your board of directors and general manager. You probably have some very influential members in your club.

There is a third way: encouraging your board of directors and general manager to have your membership join "Golfers for a Better Environment." To refresh your memory, the $5-a-member program is jointly promoted by the University of Florida and the FTGA. We cannot replace the large monetary reduction caused by state budget cuts, but by encouraging your club to join the $5-a-member program for turfgrass research, we can accomplish two things: First we obviously gain more research money for needed projects with the faculty of the University of Florida. Secondly, and we gain political clout to go to the Legislature for matching funds.

If 25 clubs with an average membership of 500 were to join this spring, 12,500 voting members would be contributing. Take it a step further. If only 25 clubs from each coast joined for a total of 50 clubs, that is 25,000 registered voters supporting turfgrass research in Florida. I am not saying we could save a particular REC like Ft. Lauderdale, but I am saying we might gain support in the Legislature to promote our turf research with a line item to do it. Politicians listen to numbers of voters. Think about it - only 25 clubs on each coast.

On a happier note, I just returned this morning from a wonderful day at Jonathan's Landing on Friday, Nov. 30. Thanks to General Manager Peter Young, Club President Paul Moore, the board of directors and Michael J. Perham, GCCS director of course maintenance, Jonathan's Landing presented FTGA President R. Alan Puckett and me with a $6,500.00 check representing $10 a member from 650 members.

The presentation was made at the official opening of the redesigned "Village" course at the recommendation of Jan Beljan, associate designer of Fazio Golf. I was invited to play the opening round tournament with the club president and general manager. There was a lot of friendly protest when we won the tournament. The FTGA was enthusiastically thanked for its promotion of this grassroots member program. Please see the enclosed letter from the club.

Dr. Terril Neil of the University of Florida and I would be happy to come to your club and explain the program to your club officials.

Donald R Benham is director of public relations, Florida Turfgrass Association; 941-355-7679; fax 407-896-6857; rbbenham@aol.com

DONALD R. BENHAM, DIRECTOR OF PUBLIC RELATIONS FLORIDA TURFGRASS ASSOCIATION 7309 LINKS COURT SARASOTA, FL 33813 OCTOBER 31, 2001

Dear Donald:

At the recommendation of Jan Beljan, Associate Designer with Fazio Golf Course Designers, you are invited to join Jonathan's Landing Golf Club to officially open our newly redesigned "Village Course". During this event the members of Jonathan's Landing would like to present a check in the amount of $6,500 to benefit the Florida Turfgrass Association.

The membership at Jonathan's Landing is appreciative of the dedication shown by the organization in developing superior products to better the game of golf. Through your efforts and those affiliated around the country, the continued research improving turf conditions has greatly assisted our industry.

We would appreciate your attendance.

Sincerely,

Peter H. Young, CCM
General Manager/COO

NEW DISEASE IMPACTING POA TRIVIALIS OVERSEEDING

A new patch disease has been making its presence known these days in the SE Region on overseeded bermudagrass putting greens. Dr. Bruce Martin has identified two known cases at the Clemson-Pee Dee Research Station. The new disease has been identified as belonging to the chytridomycete fungal group. Dr. Larry Stowell has produced a PDF of PACE Consulting originally diagnosed the disease on the West Coast in 1995 at golf courses in Nevada and Arizona. USGA agronomists have seen the disease in Carolina coastal golf courses over the past few years, but never knew the cause of the problem.

The disease impacts Poa trivialis, Poa annua, and perennial ryegrass. It really wrecks out Poa trivialis, by far the most popular overseeded turf now on putting greens in the SE Region. The disease resembles the pythium fungus as the turf looks water soaked prior to death along with dime-size spots. The disease tracks along with the mowers and can attack in both the fall and spring. It is spread by zoospores like Pythium, but the organisms live inside the leaf cells, which is one reason why it has been so tough to identify in the past.

The common denominator at sites with this new disease problem has been poor water and soil quality. The disease operates best with soil or water conditions of high EC, high salinity, and high bicarbonates. It is especially prevalent during droughts (just like we are experiencing now) and at sites without an aggressive soil amendment and flushing program.

From what is known, every variety of Poa trivialis is impacted. Rye grass is affected as...