

USGA UPDATE

Dealing with Winter Conditioning, Consequences of Water Restrictions

By John Foy and Todd Lowe

The Florida winter golf season is in full swing, and courses are hosting peak seasonal play, although many courses are reporting fewer rounds relative to the past couple of years. There is intense competition to attract and retain members, and, naturally, without a full membership, operating costs must be reduced. The current economic slowdown is definitely impacting golf operations throughout the state.

The mild winter temperatures have prevailed, and throughout the central and southern part of the state, bermudagrass and seashore paspalum have maintained a green color character and some growth. The mild temperatures have been a positive since overseeding results have been less than satisfactory at many facilities and concerns about pending irrigation restrictions caused others not to overseed at all.

At least along the lower east coast, timely and adequate rainfall has softened the impact of mandated Phase III water use restrictions. During my TAS visits in early March, golf course superintendents are providing appropriate and good quality overall conditioning for daily play.

In contrast, at courses with moderate to heavy daily play, typical wintertime cart-traffic wear and damage is apparent. Golfers complain about tight fairway lies, loss of definition between the fairway and rough cuts, and clumpy and inconsistent rough.

At courses through the middle of the state, and along the west coast where a moderate to severe drought has persisted, cart traffic wear and damage has been greatly exacerbated. Over the

years, the importance of proper preparations during the late summer and early fall, along with aggressive cart traffic management, have been stressed for minimizing damage and surviving early winter season play in the best possible condition. The goal at courses in central to south Florida is to survive until early to mid-March when sustained growth



Water efficient design. Smaller part-circle heads deliver the water only to the turfgrass on this tee surrounded by a naturalized unirrigated area. Photo by Joel Jackson

and recovery begins in response to increasing day length and temperatures.

For the 2008 winter golf season, there also is tremendous concern about what lies ahead. As we move through the spring, increasing day length and temperatures result in a corresponding increase in turfgrass water-use rates and irrigation needs.

For courses in the South Florida Water Management District, the Phase III water-use restrictions require a 45 percent reduction in pumping allocations, which presents a challenging, but manageable, situation.

A big problem arises because the reductions are based on a monthly predictive calculation, and, at many facilities, it has been determined that

allocations are actually 60 to 70 percent less than actual irrigation use, based on the past five-year averages during February, March and April. If timely and adequate rainfall does not occur during this three-month period, many courses will have to limit supplemental irrigation to greens and tees, and significant portions of the fairways and roughs will go into drought stress. While bermudagrass and seashore paspalum have good drought tolerance, a much greater impact beyond off-color turf will be experienced.

Florida Region Web updates have offered drought management tips, such as raising heights of cut and mowing less frequently. At this point, however, while no doubt unpopular with golfers, an extremely proactive and aggressive cart-traffic-management program is needed. Along with strictly enforced cart-usage polices, directional control devices need to be put into place before excessive wear and damage occurs.

Some golf courses are lucky enough to have an unrestricted irrigation water source available such as recycled water. At these facilities it will be possible to maintain an overall uniform green color, which will only create more problems at facilities that must manage with a restricted water source. There is no doubt that abundant summertime rains will recur in Florida, but golfers need to accept that water conservation and use restrictions will be a fact of life in Florida.

**DESPERATE TIMES
DESPERATE MEASURES**

If desperate times call for desperate measures, then these must be desperate times for some water-management districts. It was mentioned recently that the Southwest Florida Water Management District will be implementing Phase III irrigation restrictions beginning in January. The supposed objective for Phase III water restrictions is

a 45 percent reduction; the supposed objective for Phase II restrictions is a 30 percent reduction, when actual irrigation allotments for many courses revealed nearly 70% reductions compared to previous years. Many courses are quite frantic over the outcome of the upcoming Phase III restrictions and how this will affect playing conditions and turf health.

The following are my observations of the restrictions and how golf course maintenance programs in Florida are impacted:

PHASE I (15% reduction) - Most bermudagrass playing surfaces can be irrigated as necessary to provide acceptable turf quality. Roughs become off-color and localized dry spots occur at times, but no change in maintenance is necessary.

PHASE II (30% reduction) - Primary play areas (greens, tees, fairways) are kept alive and generally green in color. Regular wetting-agent treatments are

necessary to reduce the severity of localized dry spots. Increased mowing heights and decreased mowing frequency are necessary to improve rooting and increase the turf's ability to take up water. Plant growth regulators also have shown some benefit in drought tolerance and can be applied on a regular basis. Cart traffic management is vital as the turf begins to lose color.

PHASE III (45% reduction) - Phase III will cause severe loss of turf color. Progression of brown conditions will begin from the outer roughs and work their way into primary playing areas. Since only a small percentage of water is allotted compared to previous years, greens and tees should be kept alive and the remaining water delivered to fairway landing areas when available.

Healthy bermudagrass is quite drought tolerant and courses should do everything possible to maintain healthy turf conditions.

It is important to restrict traffic as

much as possible. Clubs should divert traffic away from areas that appear stressed and off-color, as the additional stress can kill turf. Eventually, it may be necessary to completely restrict cart traffic to cart paths and designated areas. Some areas may die off from drought accompanied by other stresses like shade, nematodes and traffic. These may need to be re-grassed in late spring, if irrigation restrictions are lifted at that time.

Having an efficient irrigation system and design allows golf course superintendents to conserve water and apply it exactly where it is needed. It may be time to have your system audited by a professional irrigation consultant. If restrictions become a normal part of golf course maintenance in the future, it may also be necessary to consider decreasing irrigated bermudagrass turf acreage by installing or enlarging natural areas or utilizing drought-tolerant bahiagrass in outer rough areas.

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Jack Harrell named to Environmental Institute's Council

Jack R. Harrell, Jr., CEO of Harrell's Fertilizer, Inc. of Lakeland, has been named to the Advisory Council for The Environmental Institute for Golf.

The leading producer of quality custom-blended fertilizers and a distributor of chemicals and grass seed for the golf course, sports turf, lawn and ornamental and horticulture industries, the company's production of fertilizer exceeds 75,000 tons annually. Harrell's is the exclusive eastern formulator and a leading world distributor of Polyon Technology.

Harrell is the 15th member to join the Advisory Council headed by World Golf Hall of Fame member Greg Norman.

"Jack will bring a new and unique perspective to this group," said Nor-

man, chairman and CEO of Great White Shark Enterprises. "He is a well respected entrepreneur with a wealth of knowledge and experience that has already been of great benefit to The Institute."

The Advisory Council provides guidance to The Institute's board of trustees in the areas of outreach, fundraising and strategic planning. The members were selected to enhance The Institute's ability to cultivate relationships with current and potential donors, as well as communicate the importance of the work conducted by The Institute.

The Environmental Institute for Golf, the philanthropic organization of the Golf Course Superintendents Association of America, is a collaborative effort of the environmental and golf communities, dedicated to strengthening the compatibility of golf with the natural environment. The Institute concentrates on delivering programs and services involving research, education



Jack R. Harrell, Jr.

and outreach that communicate the best management practices of environmental stewardship on the golf course.

In addition to Norman and Harrell, other members of the advisory council include ClubCorp USA Inc; Tom Crow, founder of Cobra Golf and a retired trustee for The Institute; Dana Garmany, chairman and CEO of Troon Golf; and R.D. Hubbard, owner of Bighorn Golf Club in Palm Desert, Calif.

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2008 PLANTS OF THE YEAR

Sabal minor

Common Name: Dwarf Palmetto

Zones: North, Central and South

Mature Height and Spread: 4' - 6' tall and 4' - 6' wide

Classification: Shrub, palm

Landscape Use: Mass, specimen, under planting

Characteristics: A durable, cold-tolerant, Southeast native, this palm is small and drought tolerant with fan shaped fronds. The foliage is green to blue-green. Long stalks of fragrant white flowers grow in late spring or early summer, producing small black fruits enjoyed by wildlife. It grows well in a wide range of soil types and light conditions. The dwarf palmetto usually appears trunkless due its subterranean trunk, and adds a great native touch when a small-scale plant is needed.

Propagation: By seed



Quercus geminata

Common Name: Sand Live Oak

Zones: North, Central & Northern areas of the South zone

Mature Height and Spread: Typically 20- - 30' tall and 15' - 20' wide; can reach 50' - 60' inland.

Classification: Tree

Landscape Use: Street tree, specimen, dune restoration

Characteristics: Similar to southern live oak but smaller in stature, this salt-tolerant and drought-tolerant, Florida native tree has an irregular growth habit and spreading canopy. Some forms are tree-like and some may form a thicket. The dark green cupped leaves are distinctly boat-shaped with a whitish grey underside. The acorns are sought by wildlife. The Sand Live Oak has proven severe storm durability, making it an ideal tree for Florida's sometimes stormy environment.

Propagation: By seed



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GSDC unveils No-Till TifEagle initiative

By Sam Williams

The Georgia Seed Development Commission and TifEagle Growers Association have designated six TifEagle growers as “Authorized No-Till TifEagle Grower/Installers.” They are listed at the end of this article.

According to Dr. Mike Garland, director of GSDC, “These six top-quality growers have been specially trained and authorized to handle all no-till TifEagle sales, on-site inspections and installations. These folks have also agreed to the additional safeguards we felt were essential for our no-till

TifEagle initiative.

“For starters, their no-till TifEagle production fields will be inspected three times each year for varietal purity and problem weeds. As an additional safeguard, all no-till TifEagle production fields will be inspected and tested for sting and lance nematodes. And to ensure freshness and planting uniformity all no-till TifEagle sprigs will first be cleaned and milled to remove thatch, dirt and overly large sprigs and clumps, and then delivered in sealed plastic bags or refrigerated trucks.

“And lastly, these growers have committed to multiple follow-up inspections to ensure customer satisfaction. Our goal is to make sure our customers get a rapid, problem-free grow-in.”

prep can also be done with your own crews and equipment to fit your own schedule. Bottom line, you get a speedy conversion from poor quality greens to TifEagle, the ultimate ultradwarf putting surface.

UNIQUE ADVANTAGES OF TIFEAGLE

TifEagle is grown, inspected and sold under a rigorous set of rules and guidelines set up by the Georgia Seed Development Commission to promote on-going purity and uniformity. In fact, TifEagle is the only ultradwarf variety that has this kind of unbiased third-party oversight. This ensures that the TifEagle sprigs you receive are not contaminated with offtypes, which may occur in the Tifgreen/Tifdwarf family of cultivars.

TifEagle has a number of other unique advantages over traditional bermudagrass greens varieties, as well as many of the new ultradwarf varieties. When maintained at a cutting height of 0.125 inch (3.2mm), TifEagle produces a quality putting surface second to none. It exhibits very aggressive rhizomatous and stoloniferous growth habits, maintains superior color under cool conditions and provides an excellent putting surface during the winter season, with or without overseeding. In fact, many superintendents are reporting excellent results with painted TifEagle greens.

EDITOR'S NOTE: *We don't normally run news releases because we simply don't have enough space to accommodate every request. We make exceptions from time to time for new technology which may have a measurable impact on turf management. Such is the case here, where the cost and water savings can be significant in these times of a flat economy and water conservation mandates. Sam Williams is a communication professional who represents the TifEagle Growers. Also please note that several Florida courses have used the No Till process with Champion Ultradwarf.*

Authorized No-Till TifEagle Grower/Installers

NewLife Turf, Norway SC, 803-263-4231, 803 263-4886 (Fax); John Brown (newlifeturf@tds.net); Bragg Williams (newlifeturf@tds.net)

Pike Creek Turf, Inc., Adel GA, 800-232-7453, 229 896-7581, 229 896-7584 (Fax) www.pikecreekturf.com; Harold Pirkle (hpirkle@pikecreekturf.com); Bruce Allison (bvallison@att.net)

South Florida Grassing, Inc. - Hobe Sound FL, 800-483-4279 (Florida), 772-546-4191, 772 546-3482 (Fax); Homer Greene (hgreene7@comcast.net)

Southern Turf Nurseries, Inc. - Alapaha GA, 800-841-6413, 229-686-2020, 229-686-6552 (Fax); www.southernturf.com; Anna Tillman (annatillman@hughes.net)

Tifton Turf Farms - Tifton GA, 800-841-6645, 229-386-8061, 229-386-1207 (Fax); www.tiftonturf.com; Paul Massey (pcmassey56@bellsouth.net)

Tri-Tex Grass - Tioga TX, 866-573-6676, 817-573-6676, 817 573-4958 (Fax); www.tritexgrass.com; Randy Price (randy@tritexgrass.com)

THE NO-TILL PROCESS

No-till or minimum-till is not a new concept. The practice has been around for a number of years and has proven to be an excellent method for reducing production costs, preserving soil moisture, and reducing soil and nutrient loss for many crops. In recent years, a specialized “no-till process” has been successfully used on golf courses to hold down the costs associated with greens renovations. It basically involves applying Roundup or methyl bromide to kill the existing grass and verticutting down to the stolon/rhizome/top-dressing interface to create a healthy seedbed, followed by a thorough clean-up of all debris. The final steps include aeration, topdressing and, of course, distribution of fresh new TifEagle sprigs.

NO-TILL RENOVATION

No-till TifEagle can save you up to 75% of the cost of conventional greens reconstruction. Complete rebuild-costs range from \$1.50 to \$4.00 per sq. ft. versus 45 cents to 80 cents per sq. ft. for no-till. Time saved is another big factor. Six to eight weeks is normal turnaround for no-till versus 10 to 18 weeks for a complete rebuild. Reduced downtime greatly reduces lost revenue. Site