USGA Update 'Nobody Knows, How Dry I Am'

By Todd Lowe

Golf courses are singing the blues as the drought continues. In fact, a light haze of smoke has wafted in on TAS visits lately. The smoke is not from roughs burning out, but from multiple wildfires throughout the region. Record low rainfall has caused phase II restrictions (30 percent reduction) throughout most of the region to be in effect, with some areas experiencing Phase III restrictions (45 percent reduction). The water management districts are to be applauded for working with golf course superintendents and allowing them to decide when to irrigate; previous restrictions limited use to certain



Bermudagrass can survive extended periods of drought, but becomes brown as it goes dormant. Photo by Todd Lowe.

week days. After several meetings with concerned golf course superintendents, it was decided to allow courses to irrigate by a reduced percentage than their normal allotment.

Golf courses use a small percentage of water compared to other users, especially homeowners, and can easily monitor and reduce use as needed.

Enforcing restrictions on other groups is much more difficult for the water management districts, as it is difficult to effectively monitor them. Golf courses report monthly on their usage, and restriction enforcement is a much easier task. Most golf courses truly are stewards of natural resources as they are a refuge for a variety of

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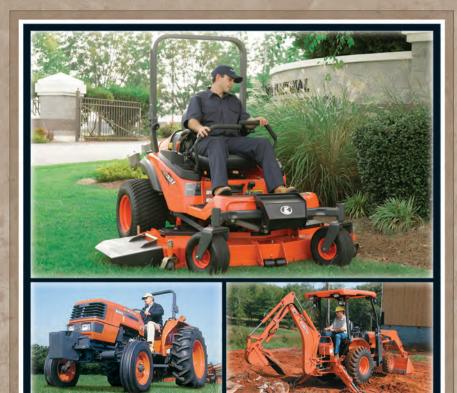
The good news for the water reductions is that bermudagrass is drought tolerant and goes dormant until regular rainfall occurs. The bad news is that lush, green playing conditions cannot be sustained in such conditions. Localized dry spots initially occur, causing a leopard-like pattern of brown and green turf and, eventually the entire area becomes brown.

Water restrictions prioritize water use to primary play areas, with putting greens receiving highest priority.

Teeing grounds are next, with fairways (particularly landing areas) ranking third. Roughs and non-play areas (like driving ranges) receive lowest priority among playing surfaces and should receive the least amount of water. As a result, many non-play areas and roughs are in various stages of drought dormancy on many golf courses at this time.

Several guidelines for managing drought-stressed turf were listed in the previous regional update and it is recommended to implement these important strategies. Also, normal cultivation practices like core aeration and verticutting on tees, fairways, and roughs may need to be postponed until normal rainfall occurs and water restrictions are lifted. Having some flexibility in scheduling is important to ensure that these necessary cultural practices are implemented at a later date

Unlike residential properties that are restricted to set times and days of the week for landscape irrigation, golf courses are required to reduce consumption by 15 percent and 30 percent for Phase 1 and Phase 2 restrictions respectively, based on their water-use permits. While warm-season turfgrasses such as bermudagrass and seashore paspalum have very good drought tolerance, having to manage with 30 percent less water will have an impact, especially on aesthetic characteristics. At courses in Central to South Florida where large-acreage, winter-overseeding programs are



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conducted, avoiding a rapid transition also will be a challenge. Appropriate and good quality overall course conditioning can still be provided when Phase 1 and Phase 2 water restrictions are in effect.

The following is a review of some basic agronomic principals for managing turfgrass during a drought:

Control Traffic. Develop a traffic-control program if one is not already in place. Heavy traffic on grass under wilt/drought stress can cause permanent damage. Restrict cart traffic to paths, minimize traffic on roughs to the extent possible, do not allow crossover of the "90 degree rule" and encourage walking. The less traffic, the better. Drought-stressed turf will not tolerate traffic very well.

Raise Mowing Heights and Mow Less Often. After all, the grass should be growing more slowly.

Use Plant Growth Regulators.

Where appropriate, apply or continue using growth-regulating chemicals. These products can reduce water use rates by as much as 30 percent. PGR use can improve root development and conserve soil moisture through top growth reduction.

Pest Management. On a positive note, insect (mole crickets) and disease activity is greatly reduced during drought conditions. However, infestations of plant parasitic nematodes can further compound drought-stress problems and the need to conduct nematicide treatments. Herbicide treatments should be performed with extra care anywhere the turf is drought stressed.

Fertility. Defer fertilizer applications, especially granular, readily-available nitrogen materials until the weather moderates. Guard against stimulating too much growth. Sprayable forms of fertilizers can be beneficial when applied in a timely fashion. Maintaining adequate potassium is helpful for increasing the turf's stress tolerance.

Irrigation Water Quality. Regardless of the source, check the irrigation water for sodium/salt buildup. In several locations, salt intrusion is a growing

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PLANTS OF THE YEAR

Launched in 1998, the Florida Plants of the Year program links growers with garden enthusiasts by designating plants friendly to each of Florida's three geographic regions as Florida Plants of the Year. For 2007, five plants were selected by a jury representing different facets of the state's diverse nursery and landscape industry. The Florida Nursery, Growers & Landscape Association (FNGLA) is pleased to announce the following plant as one the program's 2007 inductees:

Galphimia gracilis

Common Name: Shower of Gold Zones: North as a perennial, Central & South Mature Height and Spread: Generally 6' x 4', but can vary Classification: Shrub Landscape Use: as hedge, mass, accent or foundation plant Characteristics: A drought-tolerant, evergreen shrub with blue-green foilage, Galphimia gracilis is loaded year-round with yellow clustering flowers growing



Use as a hedge, mass planting or accent plant. Photo credit:
Grandiflora

up to an inch in diameter. This plant was formerly assigned the genus *Thryalis* and many times is



referred to as such. The plants are long blooming, easy-to-grow, and fast growing, thrive in full sun, and like ample room to grow. Branches are brittle, so use in areas where traffic is minimal. To maintain a great-looking plant, prune 1-2 times annually.

Possible Insect/Disease Problems: In south Florida susceptible ot powery mildew

Propagation: by cutting or seed The Florida Plants of the Year program is administered by FNGLA: 800-375-3642; www.fngla. org

concern. Evaluate the irrigation system as inefficient operation wastes water. Evaluate irrigated area and determine which portions of the course are most important to play, i.e. up the middle from tee to green.

Renovation/Reconstruction.

Rethink renovation or reconstruction projects. In general, do not disturb the turf unless you have the ability to irrigate these areas. Be patient, wait for better weather, and monitor district and local regulations covering renovation and turf establishment.

Landscaping. Trees and other plantings also need attention during drought. Some tree species require considerable amounts of water and may slowly go into decline during drought. Assess tree conditions regularly. Periodic deep soaking may be necessary

to save desirable trees.

Remember that all golf courses represent the turfgrass industry and the game of golf. Respect irrigation regulations and requests for voluntary conservation. While individual conditions vary, we are in a serious drought, and unfortunately, no relief is in sight. Good luck and let's pray for rain.

EDITOR'S NOTE: These guidelines are excerpted from John Foy, USGA Florida Region Director's USGA April Florida Regional Update mentioned by Lowe. Tropical Storm Barry which grazed Florida June 1-2 seems to have kicked off our traditional summer "wet" season. The moral of the story is that droughts will come again, so learn how to prepare for the next time and don't forget the lessons of the recent past.