

USGA UPDATE FLORIDA REGION

Irrigation Restrictions Should Be Firm But Fair

By Todd Lowe

For the past month I have been contacted by a number of Southwest Florida superintendents anxious about irrigation water allotments for the upcoming winter season. I was not overly concerned at first since these golf courses were supposedly being restricted by only 30 percent of their normal allotment. Healthy bermudagrass can withstand such reductions and just turns off-color (brown) during drought stress.

However, closer evaluation of actual water allotments for the upcoming months revealed that irrigation restrictions are much more harsh.

The superintendent at a non-overseeded 27-hole facility (160 acres) I recently visited remarked that their monthly allotments for January,

February, and March will be 5.2 million gallons, 6.2 million gallons, and 13.4 million gallons, respectively. Average water use on this golf course during the past five years has been 15.1 million gallons in January, 16.6 million gallons in February, and 23.7 million gallons in March. This change equates to a reduction of more than 60 percent for these months! Harsh restrictions will not only cause brown playing conditions, but will significantly impact long-term golf course health, and, most likely, cause some turf loss during the annual dry season.

This is especially disappointing considering golf courses utilize only 2 percent of the water supply in Florida, while home lawns utilize up to 15 percent. It is frustrating when we drive through our neighborhoods and see lush green yards that are over-irrigated, while golf courses suffer.

Many Florida golf courses provide an added environmental benefit by utilizing treated wastewater for irrigation; but not all golf courses have access to treated or recycled water. As a result, golf courses with recycled water will receive more water during the upcoming months and will remain greener. Unfortunately, it is difficult to explain this fact when golfers begin to play other courses and start to compare playing conditions.

The problem with the Modified Blaney-Criddle water-reduction model currently used is that it uses an equation that is less regionally sensitive in regards to water requirements of bermudagrass on golf courses. This model tends to under-allocate water in the dry winter and spring and over-allocate water in the rainy season.

The water management districts have worked with golf courses in the past and I am hopeful that they will utilize updated prediction models developed by university professors to better predict actual water requirements. Otherwise, superintendents will have barely enough water to maintain putting greens, teeing grounds, and landing areas on fairways without supplemental rainfall.

In a regional update from April 2007 (www.usga.org/turf/regional_updates/regional_reports/florida/04-23-2007.html), John Foy mentioned several important cultural practices for dealing with drought conditions. These are excellent guidelines to implement at this time. If restrictions worsen, your course may need to plan for additional projects. Such projects will cause a major strain on capital improvement budgets, so stay tuned and we will keep you posted as we learn more about this important situation.

Editor's Note: For those who are interested, here is the full citation for the Modified Blaney-Criddle Method: **Blaney, H. F. and W. D. Criddle. 1950. Determining water requirements in irrigated areas from climatological data. U.S.D.A. Soil Conservation Service Tech. Pub. 96**



Golf course irrigation is professionally managed and only consumes around 3 percent of the fresh water used annually in Florida. Photo by Joel Jackson.