

# Will April Showers Bring May Flowers And Green Turf?

*Water, Water Everywhere – But Not A Drop To Drink?*

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Our most precious natural resource is nearing record low levels. The National Oceanic and Atmospheric Administration (NOAA) is currently reporting moderate to extreme drought conditions in more than 30 states throughout the United States. The water crisis is due to chronic and continuing rainfall deficits coupled with a lack of snow accumulation, which has resulted in abnormally low stream flows, reduced ground water levels, and water supply shortages. Forecasters caution that the dry pattern and drought impacts will likely linger.

What if Mother Nature isn't kind and doesn't bring our April showers? Will superintendents be forced to watch their turf shrivel in the sun? What are your options in the face of a summer of increasingly stringent water restrictions?

## How Will Superintendents Be Affected?

As a turf professional, you face particularly difficult choices in relation to water conservation issues. It makes sense both financially and ecologically to use less water and do your part to protect one of our most vital resources. However, water is critical to your business - from the establishment and maintenance of healthy roots for uniform, vigorous turf and plants to the distribution and effectiveness of soil-targeted chemicals and fertilizers. Patrons of your facility may also be less mindful and appreciative of your conservation efforts. They have come to expect an aesthetically pleasing experience with lush, vibrant turf; they find browning grass, even though still playable, less than appealing. Vibrantly colored flowers, trees and shrubs are expected around the clubhouse and throughout the course. If the golfers/members are dissatisfied, so is your employer - loss of revenues can equate to the loss of your job. So what choices do you have?

## Save Water and Your Job!

There are several strategies you as a turf professional can employ to satisfy your conscience and your patrons. One of these strategies is a soil surfactant (wetting agent). Surfactants have been available for almost 50 years and have become an increasingly important tool for sound turf management programs. The most promising information is the use of certain surfactants to reduce overall water usage. Water has a natural tendency to run off sloped surfaces, sit at the surface of the soil where it evaporates, or channel unevenly through the soil profile so that it may be inaccessible to the roots. Some surfactants are formulated to penetrate uniformly into the rootzone area and provide water

where it is most needed, without causing the area to become over-saturated and soggy. This allows your turf to make the best and most complete use of applied water, particularly during dry spells; consequently you can apply less water with greater benefit. Surfactants also allow turf managers flexibility to dry soils for fast, firm greens while still ensuring confidence in quickly rewetting these soils to moisture levels required for quality turf performance even during drought stress periods.

## Water-Wise Superintendents

Paul Davids, CGCS, at Colbert Hills at Kansas State University (Manhattan, Kansas) started injecting a surfactant on his entire course in July 2001. "The benefits beyond reduced water usage were impressive. The uniformity of turf color was very surprising. My course is very undulating and the high spots greened up and stayed green. The lower spots weren't wet like they had been. I was able to eliminate afternoon spot watering on roughs, fairways, and tees."

A fifteen-year veteran, Phil Neaton of Black Hall Country Club, in Old Lyme, CT has used Aquatrols surfactants because they are proven and safe, "Injecting surfactants has allowed me to cut my fairway watering in half. I also had three, very wet greens that made it difficult to move the cup around (because of the strong suction hold). Surfactants help me maintain uniformly, moist turf that is not too wet."

South Florida was under Phase 2 water restrictions for several months during 2001, allowing courses to water fairways only twice a week within a designated 8-hour water window. Despite these restrictions, The Club at Emerald Hills in Hollywood, Florida, was in amazing shape. Robert Harper, superintendent of The Club at Emerald Hills, admits that his saving grace was the use of wetting agents, which he injected through his fertigation system. "Even with reduced watering, the wetting agents, in combination with my fertilizer program, increased the health of my fairway turf and improved turf color and uniformity. When the restrictions were lifted, our fairways were the best they'd ever been."

Golf course superintendents and growers have relied for years on surfactants as an inexpensive insurance policy to insure plant and turf survival. Using surfactants can help you save water, protect your bottom line and keep your customers happy in the face of potentially devastating drought conditions. Your water management practices -- isn't it time to take a closer look?

*(Editor's Note: This article was submitted by Kathleen Conard, Aquatrols, Cherry Hill, NJ.)*