LESS WATER, big savings

Bonnie Briar Country Club's superintendent quenched his course's thirst for costly Big Apple water with wetting agents. BY MIKE ZAWACKI

Dependent on water from nearby New York City, the private, 18-hole Bonnie Briar Country Club, located in Larchmont, N.Y., in southern Westchester County, needed to find a way to curb its water costs, which have increased 25 percent the last three years. In 2005, for example, the club used more than 23.6 million gallons of water to irrigate its course at a cost of $93,000.

When superintendent Nick Lerner came on board in 2003, his first order of business was to address water consumption. He started by fine tuning the course's irrigation system, then he sought other ways to use less water.

"I knew whatever I could cut back on would make a huge difference," he says. "Also, with the financial crisis my budget has been cut. I don't have any leeway to make mistakes. Water is an area that, if I can use less of, then I may develop a surplus and can use that money elsewhere on the course. Also, I knew I could save on electricity because if I could reduce the amount of water that I use, then my electric bill will be lower."
Lerner operates with an annual maintenance budget of between $1.35 million and $1.4 million, and he oversees two assistants, a mechanic and 13 grounds employees. Bonnie Briar's tees are primarily all bentgrass, the fairways and the greens are a mix of several varieties of bentgrass and Poa annua.

To troubleshoot the amount he spent on water, one thing Lerner did was turn to wetting agents, which he first used in the 1990s as a college intern. In total, Lerner uses five different Aquatrols wetting agents. The wetting agents work through the soil and allow water to become more available to plant roots.

Built in 1921, Bonnie Briar's course features a number of beautiful rock and ledge formations. Many of these formations remain under the fairways and areas of turf, creating a challenging scenario. "There are a number of areas that are basically rock with soil overtop," Lerner says. "As the soil warms those rocks get warmer, making it difficult for the turf to thrive. A lot of time the turf will go dormant due to these conditions and the areas will brown out, which is not what we want to see." Lerner uses the soil surfactant Aqueduct to overcome this challenge. "I used to spend a lot of time hand watering these trouble spots," he says, adding the product is applied every two to three weeks. "I go out now and apply this product, which allows the soil and plant roots to utilize water better and helps the turf get through those tough times. I used it last year for the first time and it made a big difference."

In addition to improving the effectiveness of watering on the course, it also improves pesticide absorption. For example, Lerner applies Dispatch with a spray rig — at a rate of about 24 to 26 ounces per acre — to get better performance out of his crabgrass and grub treatments. "Not only am I using it to get effective watering, but I'm also using it to increase the effectiveness of products that need to be watered into the soil," he says.

And wetting agents are effective off the course, as well. "I use an absorbant called SuperSorb, which you use in flower beds," Lerner says. "You add it to the soil and it allows the soil to hold more water. It cuts down on watering and does wonders for annuals, which require a lot of watering."

While Lerner is fond of using the Aquatrols family of wetting agents, he advises other superintendents to try any number of similar products on the market. "Every site is different and every golf course is different," he says. "It's important to consider trying a number of these products because until you try them on your site you really don't know what to expect."

Lerner spends between $7,000 and $8,000 annually on wetting agents. The water savings gained from using wetting agents more than justifies the expenditure, he says.

And while it's difficult to attribute an exact cost saving in reduced water use due to using wetting agents in 2006, 2007 and 2008, the course only used 11.7 million gallons of water last year, at a cost of $66,000. "It's very difficult to quantify a savings and usage reduction over my tenure," he says. "The timing of rain events as well as the overall weather are reasons for not being able to provide an accurate cost savings. I would say that wetting agents are great tools for superintendents and using these products would definitely help in using less irrigation water, as well as improve the effectiveness of rainfall and irrigation water going into the soil.

The result is better looking turf, Lerner says. "I'm doing what I can to prevent us from spending more," he says. "These products help the overall soil conditions and help prevent wilting and stress, which occurs from May through mid September. You can see the difference."