



# Spot Treatment

Mister systems address the maintenance needs of bunkers and approaches



Bunker misters can be viewed as part of a water-conservation effort. Photo: Willow Oaks Country Club

BY MARK LESLIE

The origins of bunker misters are unclear, but their effectiveness isn't. Out of obscurity, they – along with approach misters – are becoming a fixture at high-end golf facilities. This trend is acclaimed by superintendents and golf course architects.

"It's a great tool many superintendents would like to have," says Craig Fuller, CGCS, of Willow Oaks Country Club in Richmond, Va.

Bunker misters are being installed at Willow Oaks as part of a considerable course reconstruction.

"I can maintain a more consistent bunker, playabilitywise, with this mist system, and I have head-to-head control," Fuller says.

Installing bunker misters at Willow Oaks makes sense to Lester George, the architect involved with the project. Misters also make sense at the Country Club of Florida, where George worked on another project.

"Bunker faces are critical to design," he says. "If they're overwatered, they're not functioning properly. If they're underwatered, they have an aesthetic problem. So it's critical to get the proper



The use of bunker misters helps avoid flooding bunkers and overwatering green surrounds. Photo: Willow Oaks Country Club

amount of water at the right time without overwatering the green surrounds and flooding the bunker. The beauty of bunker misters is that you avoid both these problems.”

**MORE CONTROL**

Misters are similar to those used in standard irrigation systems in residential areas in which

pop-up heads are operated by an electric valve, which reduces pressure to the point where it will operate safely. Depending on the superintendent and bunker style, the mist might go all the way around a bunker or only along the upper portion of it.

Mike Pignato, who designed the bunker mister system at Willow Oaks, says he has used such a



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## IRRIGATION MANAGEMENT

system for six or seven years, but it's becoming a standard at higher-end facilities.

"It offers a quick syringe to the bunker faces and the surrounding area and gives capes and other bunker features the ability to get enough water without soaking the sand," says Pignato, president of The Pignato Group, an irrigation design company based in Wellington, Fla.

The mist system gives the superintendent the opportunity to syringe whenever he wants to without affecting the surrounding area, says Tom

At Willow Oaks Country Club, bunker misters allow Craig Fuller, CGCS, to maintain more consistent bunkers playabilitywise. Photo: Willow Oaks Country Club



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Bunker mister systems are becoming a standard at higher-end facilities. Photo: Willow Oaks Country Club

Klich, Landscapes Unlimited project manager who installed the system at Willow Oaks, Oak Hill Country Club in Rochester, N.Y., and Woodmont Country Club in Rockville, Md.

“Bunker faces, like greens approaches, are hot spots on the golf course the superintendent would like more control over,” Klich says.

#### HOT SPOTS

The misters also improve south-facing bunkers that dry out quickly, says architect Steve Smyers, who installed misters at Interlachen Country Club in Winter Park, Fla., this year.

Pignato also has incorporated misters in a design at Quail Hollow Country Club in Charlotte, N.C.; the Country Club of Charleston, TPC at Sawgrass in Jacksonville, Fla.; and Frederica Golf Club and Ocean Forest at Sea Island on St. Simons Island, Ga. But his first exposure to the idea came at Bear Lakes Country Club in West Palm Beach, Fla., where he and superintendent David Troiano came up with the idea.

“Although we’ve been doing it for awhile, it just started down here in Florida where we noticed bunkers, being sand-based, typically wick the water away from the turf that surrounds the bunker

or bunker complex,” he says. “It’s similar to what you see when you try to grow turf next to a parking lot. The heat of the lot dries out the turf.”

#### A WORTHY INVESTMENT?

Michael Larsen, CGCS, at Woodmont Country Club in Sykesville, Md., where misters were installed near all 66 bunkers during an irrigation project last winter, gave them a “good” but not an “excellent” rating.

“You’re able to put the water right where you need it – on the bunker face ... and you’re able to get low-infiltration rates on steep slopes rather than putting a lot of water on them and having it run off,” he says. “But the misters tend to clog a little more.”

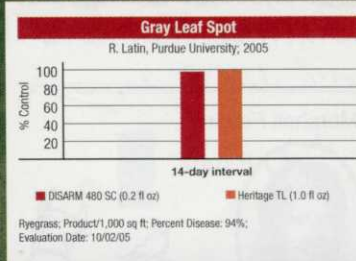
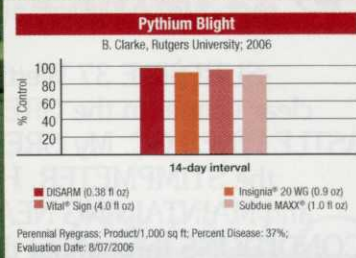
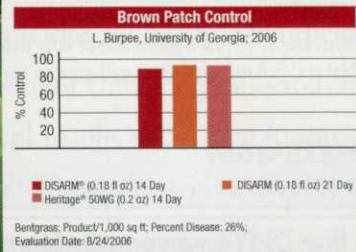
Taking the misters apart is more of a nuisance than a time-consuming chore, Larsen says.

Many clubs will cut bunker misters from tight budgets, Pignato says. But Fuller, who first became familiar with bunker misters a decade ago at New Albany (Ohio) Country Club, considers them a worthy investment. He estimates the cost to be \$600 per average-sized bunker (1,200 to 1,500 square feet) – there are 59 bunkers at Willow Oaks. From another point of view,

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**IRRIGATION MANAGEMENT**



Bunker misters are part of the need to further segregate areas of a golf course that need to be irrigated differently. Photo: Willow Oaks Country Club

George suggests course officials look at the misters as a water-conservation effort.

"Most of the golf courses that choose to use these will spend the money and install tee syringes to irrigate tee tops separately from tee surrounds," Pignato says. "The goal is to further segregate areas of the golf course that need to be irrigated differently."

**GREENS APPROACHES**

Aside from bunkers, greens approaches have special irrigation needs because they're one of the most abused areas on a golf course, Fuller says, adding the majority of equipment turns are in that area.

"Generally, the irrigation is doubled in that area - your outs from the green are spraying out into the fairway and rough, and the heads in the fairway are throwing water up to the green," he says. "The result is the approach areas are overwatered generally."

Because of that overlap, a watering system was installed in the approaches at Willow Oaks to better control the turf quality in that area, as well as the bunker faces.

"We figured we could solve 75 to 80 percent of the issues we have there by putting in a specific irrigation system just for the approaches," Fuller says. "We could have gone to the extent of making a miniature green, if you will, out onto the approaches, with six or eight inches of sand base, but that's cost prohibitive."

The approach-mister option costs about \$2,000 per hole for an average 4,000-square-foot approach, and it was well worth it, Fuller says.

"All I have to do now during grow-in is hit a button to water for six minutes and accomplish what it would take a crew member 45 minutes to an hour to do." **GCI**