

Profile nozzles undergo the catch-can test to determine coverage efficiency.

# THE FIXER

## Superintendents provide case studies in how irrigation nozzle replacement was the solution for stubborn turf problems.

by Helen Stone

It's showtime!

Playing Arnold Palmer's Bay Hill Club is on many golfer's "bucket list." The course was certainly good luck for Tiger Woods, who won the Arnold Palmer Invitational in March, 2013, starting a comeback that led to his being named this year's PGA Tour Player of the Year.

Bay Hill was built in 1961, nestling on the shores of the Butler Chain of Lakes in Orlando, Fla. In 1965, Arnold Palmer played the then-unknown course and was enamored with its natural beauty. Five years later, he made the course his own and it has been his family's winter home ever since.

Superintendent Matt Beaver came on board more than 10 years ago with high expectations to fulfill. Although Orlando enjoys more than 50 inches of rain a year, winters can be relatively dry and irrigation is a must.

In spring of 2009, Beaver was busy prepping the course for Palmer's annual tournament in March and was plagued by brown

spots and "donuts" on four holes. He tried hand watering and longer sprinkler run times, but that resulted in soggy turf. Distribution uniformity (DU) was the problem.

Although the Toro 670 heads and Toro Network VP and Lynx Control System were state-of-the-art when they were installed, that was 20 years ago, and technology has taken leaps and bounds since then. However, the club wasn't ready for a renovation yet.

"By replacing existing nozzles with third-party metal nozzles, the life of the sprinkler can be extended, says Brian Vinchesi, president of Irrigation Consulting Inc., Pepperell, Mass. "Just changing the nozzles as opposed to the whole sprinkler is much less expensive, which is attractive in today's golf economy."

Beaver consulted with colleagues and area turf specialists and decided to try Profile solid metal nozzles on the problem holes. As the tournament drew near, he was impressed with the results. Donuts disappeared and the course shined during the tournament.

As renovations commenced over the next two years on the tees, greens and bunkers, Beaver also switched out 600 nozzles in the



Superintendent Matt Beaver

fairways and roughs. By 2011, the course was in "showtime condition."

In addition to improved course conditions, Beaver was also able to cut back on his irrigation scheduling, with run times reduced by as much as a whopping 50 percent. "By improving DU, you inherently reduce water use, as the improved DU should result in shorter overall runtimes," Vinchesi explains.

"We found a practical and reliable solution at Bay Hill," says Beaver. "Wherever we have switched to solid metal Profile nozzles, the donuts have disappeared along with the soggy turf. It's been a workable solution for us."

**NETWORKING IMPROVES DU.** When Southern California golf comes to mind, many might think about cool coastal settings such as Pelican Hill Golf Club in Newport Coast or



Torrey Pines in La Jolla. Others immediately visualize spectacular desert settings at PGA West in Palm Springs or in La Quinta in the Coachella Valley. But tucked in the rolling hills between the two is a pair of immaculately maintained golf courses that serve everyone from hundreds of enthusiastic amateurs each week to PGA Championship luminaries.

The Morongo Golf Club at Tukwet Canyon in Beaumont, Calif., offers two challenging courses that host numerous tournaments including the Champions Tour National Qualifying Finals, PGA Tour Canada Qualifying, Southern California PGA Professional Championships and NCAA Division III National Championships.

Architects Lee Schmidt and Brian Curley worked to give each course its own defining persona. The Champions layout features gently rolling terrain and is distinguished by its open, native feel and rugged natural bunkering. The Legends boasts riparian streams and is flush with oak woodlands. It features a more classic style of bunkering.



Paul Mayes, CGCS, found Profile nozzles improved irrigation coverage.

Paul Mayes, CGCS, director of agronomy for the courses, has a rich history as a Southern California golf course superintendent. He served as president of the prestigious Hi-Lo Desert Superintendents Association and overseeing at top-rated clubs such as Industry Hills Golf Club.

With his eye for detail and high standards, Mayes noticed patchy areas and "donuts" around many heads. The course is irrigated with Toro 730 heads and a Toro control sys-

tem, but after running distribution uniformity (DU) tests early in the year, he found the DU was only 65 percent, well below the optimum 85 percent or better.

Mayes has an extensive networking history, so he researched and asked colleagues and turf advisors for recommendations. "We heard about Profile nozzles from other superintendents and found they improve irrigation coverage overall," he recalls.

In spring of 2013, Mayes switched out nearly 2,000 plastic nozzles on the fairways and greens with Profile solid metal nozzles.

"These type nozzles are more customized than the mass-produced plastic nozzles," says Vinchesi. "They are designed for specific sprinkler models and spacings, which allows them to have improved DU."

Mayes saw results right away, with the DU improving to 75 percent. "It was a worthwhile investment in time and resources," he says. **GCI**

*Helen Stone is a West Coast-based freelance writer and frequent GCI contributor.*

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