the WATER issue



Superintendents explain their irrigation nozzle choices to achieve distribution uniformity for flawless fairways and gorgeous greens.

by Helen M. Stone

Bill Swancutt

ILLAHE HILLS COUNTRY CLUB, SALEM, ORE. A golf course is much like a symphony. Each instrument needs to be in tune and harmonize, otherwise there are discordant notes that can spoil the experience for listeners.

Likewise, soggy areas and brown spots can spoil a golfer's experience on even the most beautiful of courses. Now at Illahe Hills country club in Salem, Ore., everything is tuned up and harmonious, offering the finest play possible for its members.

Bill Swancutt has been conducting maintenance on the 50-year-

old course for the past 31 years and has faced his share of trials. The heavy clay soil makes irrigation a challenge, even if it's necessary only four months a year.

"We put in a whole brand new system in 2000 – new mainlines, laterals, heads and controllers. But we noticed distribution uniformity problems almost from the get-go," Swancutt says.

"If you had sandy soils and good drainage, it probably wouldn't have mattered that the nozzles delivered about 20 percent more water near the heads," he explains. "Since we only start irrigating around June, it took about a month before it really became a problem."

About 10 years ago, while at a GCSAA conference he discussed the problem with his local USGA turf advisor. New metal retrofit nozzles were now available and on display at the trade show. Swancutt visited the booth after a bit more research, decided to give them a try.

Installation was a bit of a headache, so he decided to pass. He tried various other nozzles from the manufacturer. "But the different





Illahe Hills Country Club's heavy clay soil makes irrigation a challenge, even if it's necessary only four months a year.



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nozzles would just move the wet spot in the profile," he notes wryly.

The next step was plugging the short-distance nozzle, which dried out the wet spots. "But then the turf would burn out around the head and we would have to unplug the nozzles or hand water," he says.

By now, Profile nozzles had been improved and renamed and Swancutt decided to try again on a fairway. "Installation only took a few minutes per head, and I started noticing results in a couple weeks," he says.

Fall rains came and irrigation was a non-issue, but the next summer, Swancutt changed over 150 more nozzles, then 150 the next year. "They are more expensive than plastic nozzles, but we can budget for them. And they save labor; no more hand watering. We use our labor other ways to make the course play better.

"Knowing what I know now, if I could have had the irrigation heads bid without nozzles, I would have done it. I'm planning on replacing all the nozzles anyway," he says.

"It's all about uniformity," Swancutt concludes. "Bottom line is that these nozzles give you better results for the golfers, and that's what it's all about."

Now, that's harmony.

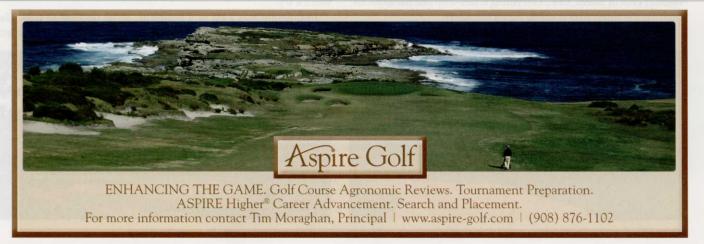
Joel Kachmarek

TACOMA COUNTRY AND GOLF CLUB, LAKEWOOD, WASH. When the sun shines in the soggy Pacific Northwest, everyone smiles. The precious clear days of summer are a signal to get out and enjoy the magnificent surroundings.

The Tacoma Country and Golf Club in Lakewood, Wash., has been putting a smile on golfers' faces since 1894. As the oldest private country club west of the Mississippi, the majestic mature trees, immaculate fairways and greens and almost faultless playing conditions reflect the attention to detail and passion for perfection golf course superintendent Joel Kachmarek pours into his work each day. Kachmarek recently completed a bunker re-design by the late golf course architect and his friend John Harbottle III, which is the jewel in the course's crown.

So although irrigation is only necessary from about June to September, distribution uniformity is critical to flawless fairways and gorgeous greens. However, with the last upgrade in the late 1980s, the 70-foot head spacing made it virtually impossible for the manufacturers' nozzles to deliver water evenly.

"Even when I started as an assistant in 1993, we had donuts around the sprinkler heads," says Kachmarek. He worked as an assistant until



1997, took a promotion at another course for two years, then returned as superintendent in 1999.

"I immediately started changing the sprinkler heads, but we were still having distribution issues," he recalls. "We played around with plugging nozzles to keep the turf from getting too wet near the sprinkler. But then we had to hand water to avoid brownouts."

Kachmarek almost resigned himself to the hand watering regimen. "After all, our irrigation season is only around 90 days," he says. But coupled with the poor uniformity, nozzles would clog on their own as the vin-



tage 1953 mainlines sent rusty metal flakes through the system. "You could drive around in the morning and see where the nozzles were plugged by rust."

Voicing his frustration to his Underhill representative resulted in a dozen Profile nozzles provided as a sample. "I threw them out there and saw results right away," says Kachmarek. He immediately ordered 50 nozzles. Installation was easy; less than five minutes a head.

"The difference was night and day," he adds. "Night and day." He switched out 200 heads that year, 500 in 2012, and plans



on completing the entire course with 500 next year.

"It'll probably run about \$12,000 by the time we're done, but when you compare that to a \$2-million system overhaul, it's worth it," Kachmarek says. "If you had to irrigate all year, it would pay for itself in water and electricity savings in a few years. And from an environmental aspect, it's cool to save water; it's cool to save electricity on pumping." GCI

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



Distribution uniformity is critical to flawless fairways and gorgeous greens at Tacoma Country and Golf Club, Lakewood, Wash.

