

Leveling Sprinkler Heads Conserves Water And Improves Playing Quality

Country Club of Detroit
Ross Miller, CGCS, superintendent

Grosse Pointe Farms, Mich. 48236

Issue

As an irrigation system ages, distribution uniformity can decline as nozzles wear and sprinkler heads become uneven with the surrounding turf. A variety of factors can cause sprinklers to become low or tilted, including turf growth, sand topdressing, bunker splash and soil settling. In northern climates, frost heaving can also leave sprinkler heads askew. Further complicating matters are golf carts and maintenance equipment that can shift sprinklers when the ground is soft. The Country Club of Detroit had numerous sprinkler heads that were low or tilted and Superintendent Ross Miller, CGCS, recognized that irrigation system performance was being negatively affected.

Action

Mr. Miller developed a plan to assess and correct underperforming sprinkler heads that were wasting water and compromising playing conditions. The first step was to evaluate individual sprinklers and prioritize them for repair. Heads around putting greens were given first priority, next came fairways, then tees and other areas. Once these priorities were established, crew members began the task of visually inspecting each sprinkler body and nozzle for any signs of cracks, leaks or damage and parts were replaced as necessary. The next step was trimming any excess turfgrass from around the head and removing any soil that could interfere with the spray pattern. Any sunken or tilted sprinklers were made level with the surrounding grade and confirmed using a small bubble level.

Sprinkler heads are re-evaluated each season to determine the current priorities. Turfgrass growth, sand topdressing and freeze-thaw cycles affect heads differently from year to year so it is important to continually monitor whether sprinklers are low or tilted. On average, about 30 to 40 sprinkler heads at the Country Club of Detroit require adjustment each year.

Results

The golf course has benefitted tremendously from the sprinkler head maintenance program. Playing surfaces are much more evenly watered and golfers are extremely pleased with the improved consistency. Mr. Miller reports a significant drop in the need for hand watering on fairways, which allows those resources to be reallocated to other maintenance tasks. The unsightly “donuts” of lush, overwatered turf that once surrounded underperforming heads have been eliminated, improving both playing conditions and aesthetics.

Integrating sprinkler leveling into the maintenance schedule required some adjustments because it takes time to do the work correctly. However, once staff members were properly trained, leveling heads became part of the routine. The improved playing conditions and water savings have made any adjustments to the maintenance schedule more than worthwhile.



A bubble level is an inexpensive tool that can help confirm whether or not a sprinkler head is properly set.