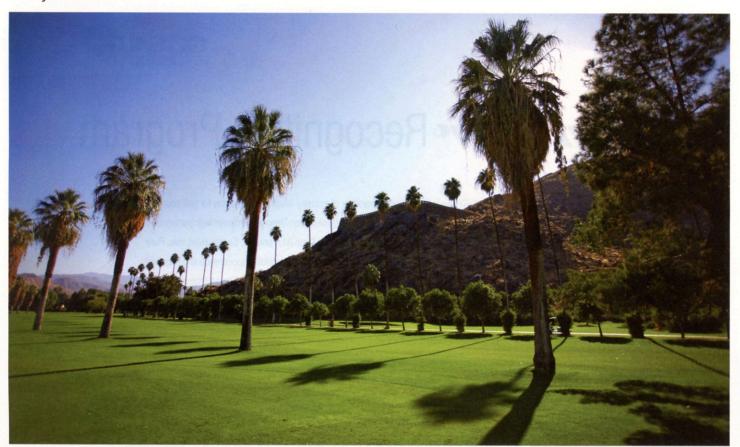
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Nancy Hardwick





Nick Hanson, superintendent at O'Donnell GC in Palm Springs, Calif., says his facility's turf injection system has increased his ability to apply wetting agents and fertilizers in a precise, efficient manner.

(profile)

A better solution

State-of-the-art turf injection systems can help save water, labor, as one classic Palm Springs course has learned.

Using resources more efficiently is top of mind for most golf course superintendents these days. Water, labor, fuel, fertilizers — everything's under scrutiny as superintendents seek new ways to do more with less.

At the O'Donnell Golf Club in Palm Springs, Calif., GCSAA Class A superintendent Nick Hanson has found that a state-of-the-art turf injection system can help conserve water, reduce runoff and cut back on labor, all while applying turf care products more efficiently and consistently.

The injection system of choice at O'Donnell, known as Flo-Pro and available from Underhill International, is designed specifically for golf courses and uses irrigation lines to apply fertilizer, wetting agents, soil amendments, acid and other liquid or water-soluble products. The system consists of a horizontal or vertical tank (sized according to the course's requirements), intake and outlet tubing, and two injectors (sized depending on the pipe and piping material).

New technology sets newer products apart from older systems where higher concentrations of product were distributed initially, with lower concentrations as the solution in the tank was drawn down. New systems keep the chemical concentrations consistent throughout distribution.

Golf industry irrigation consultant Mike Huck, the president of Irrigation & Turfgrass Services in San Juan Capistrano, Calif., has found such systems a workable solution for many courses.

"Conventional injection systems are typically quite expensive," says Huck. "Systems . . . that meter product uniformly could be a big plus when applying solutions such as wetting agents. Beyond reducing the amount of labor necessary for spray applications, some products' efficacy has



also been reported to improve when applied in larger volumes of water through irrigation injection."

A Palm Springs legend

Located in the heart of Palm Springs, O'Donnell GC is a private nine-hole course with a colorful history. It was built by oilman Thomas O'Donnell in the mid-1920s and immediately attracted Hollywood stars, including Clark Gable, Cary Grant and celebrity golfer Bob Hope, who played the course regularly. O'Donnell is SCGA-rated and has a Rain Bird Stratus II system with ICM Controller.

Prior to installing his injection system, Hanson says he would apply wetting agents and liquid fertilizer from atop his spray rig. It required a couple of days' work, and was a rigorous job during the summer, when desert temps can reach as high as 124 degrees.

Last year, Hanson and his assistant set up a 45-gallon tank in less than two hours and now use it regularly. Wetting agents go in twice a month during summer, once a month during winter, and fertilizer goes in every week.

"We no longer broadcast product in a ran-

dom way," the 12-year GCSAA member says. "We can now apply wetting agents and fertilizers in a precise, consistent manner through the irrigation system at night.

"The course has very sandy soil, and wetting agents help retain water," he continues. "With California's new drought restrictions, it's even more critical that the soil hold water. With the injector system, we can apply turf care products with less labor, vehicle use and fuel, and we've found that the turf is even healthier and greener with precise applications of product."

Increased flexibility

Among the biggest benefits that Hanson and his team at O'Donnell GC have realized following the installation of their turf injection system are the increased flexibility and precision that it offers them when applying turf products.

For example, Hanson and crew typically inject 45 gallons of wetting agent or fertilizer, then set the feed rate at 15 gallons per hour. Rather than applying it all at once over three hours, he spreads out the application program

over two nights, running the system for 11/2 hours each time. This lays down 22.5 gallons per night over two nights.

"It's very flexible and easy to adjust. . . . I can work it around my schedule," he says. "We found the injector system offers better nutrient uptake with visible results. Turf health is improved by increasing the systemic (root) absorption of fertilizers and nutrients. This can also make the grass more drought-tolerant."

"Our new injection system saves time, labor and resources. Without it, we would be using more manpower to distribute topically applied products from a spray rig or spreader. It's been a real resource- and time-saver for us."

Nancy Hardwick is the owner of Hardwick Creative Services, based in Encinitas, Calif.