One Man's Trash is Another Man's Treasure

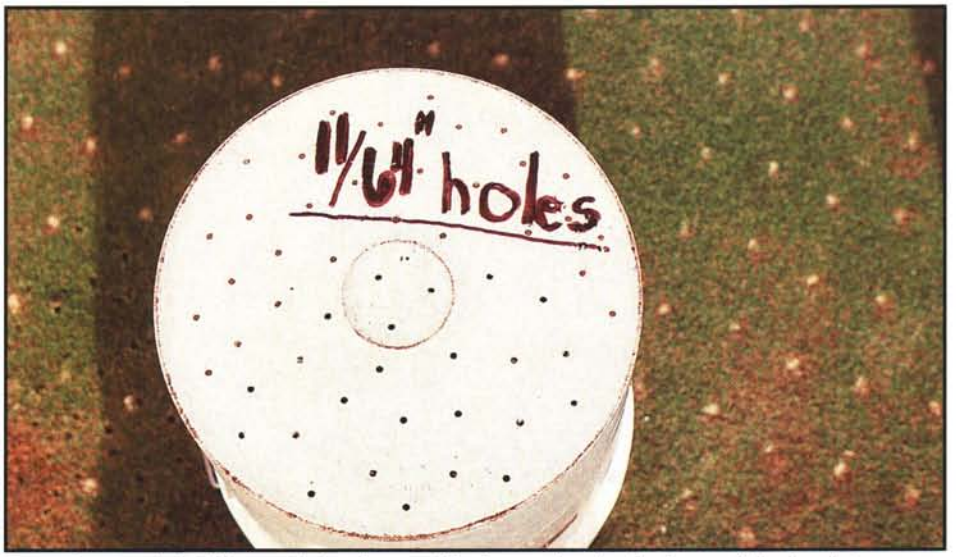
An effective, inexpensive method for applying dilute solutions of wetting agents to isolated dry spots.

by ROBERT VAVREK

ONE OF THE most common turf management concerns for golf course superintendents during the summer is the sudden development of localized patches of brown or wilted turf on greens, tees, and fairways. The causes of isolated dry spots on golf course turf are not completely understood in spite of several extensive research studies. What is known is that a wax-like organic material coats the sand or soil particles in the dry areas. Once the dry spots appear, they tend to repel water and it becomes almost impossible to rewet an affected area with typical golf course irrigation coverage.

A myriad of wetting agents have been developed to combat isolated dry spots. The most common older types are basically dilute soap solutions, which counteract the water-repellent nature of the sand or soil. Wetting agents can be injected into an irrigation system, but most superintendents spot treat isolated dry spots using granular formulations of wetting agents or by spraying the turf with soluble formulations of these materials. Another common method for applying very dilute solutions of wetting agents is through a hand-held proportioner that is connected to a hose and quick-coupler.

Spiking in several directions or aerification with hollow or solid tines is often used before a drench of wetting agent is applied to turf, especially where the dry areas repel water. Once a site develops severe isolated dry areas, a considerable amount of time and effort can be spent hand watering and spot treating the turf with wetting agents. Many of the older types of wetting agents must be thoroughly washed into the soil to prevent turf injury. The use of hand-held proportioners reduces the risk of burning or discoloring the turf because they deliver a very dilute wetting agent solution, but hand watering the dry spots is a time-consuming task that interferes with play.



Experiment with different hole sizes and hole spacing in the base of the bucket to regulate the flow of wetting agent into turf affected by isolated dry spots.

Chuck Simeon, the superintendent at Heart River Municipal Golf Course in Dickinson, North Dakota, discovered a simple and inexpensive way to slowly apply drenches of wetting agents to localized areas of turf by using a cracked five-gallon plastic bucket. He noticed that the weight of the water in a five-gallon pail would keep the outside edges of the pail pressed firmly into the turf on a short-cut green or tee and prevent the contents from gushing through the crack onto the playing surface. The size of the crack determines the rate at which the contents percolate into the soil. Better yet, drill small holes in a grid pattern across the bottom of the bucket to control the flow into the soil. Chuck found that 11/64-inch diameter holes spaced a few inches apart worked well at Heart River, but one could experiment with a different size or number of holes to address their particular concerns. He also prefers a 1 ounce Naiad per 10 gallons of water dilution ratio. Again, this procedure can easily be adapted to whatever wetting agent you prefer. The dry areas are still aerified with a hand-operated coring unit prior to treatment to facilitate water movement into the soil.

Buckets on greens or tees would interfere with golf during the day, so the treatments are applied in the evening. The wetting agents slowly soak into the dry areas all night, and there is relatively little risk of any injury to turf because the materials never dry on the grass blades in the hot sun. More importantly, the buckets do all the work and require little, if any, supervision.

Obviously, this technique is not suited for extensive areas on greens or fairways that are plagued by severe dry spots, but the bucket drench is ideally suited for the occasional isolated dry spots that crop up from time to time on most courses throughout the summer. Truly, one man's trash can be another man's treasure.

ROBERT VAVREK *finds many treasures from the innovative ideas of golf course superintendents as the Green Section agronomist in the North-Central Region.*