

Establishing Warm-Season Grasses To Improve Playability And Drought Tolerance

Virginia Country Club
Michael Carlson, CGCS, superintendent

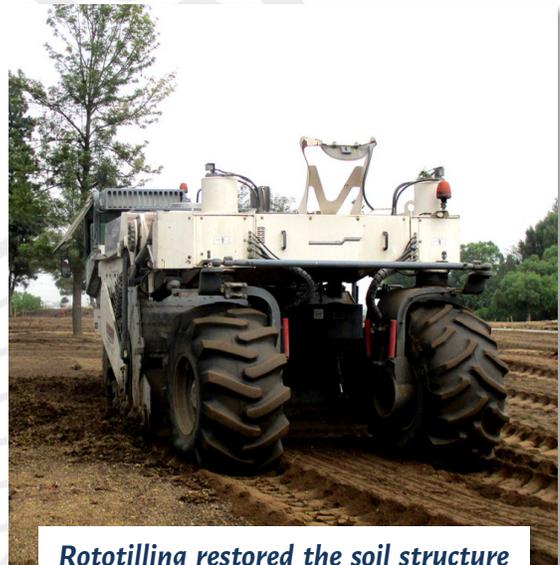
Long Beach, Calif. 90807

Issue

Virginia Country Club had a mixed stand of warm- and cool-season grasses that created inconsistent playing conditions in the fairways and roughs. In addition, extra irrigation was required during summer months to keep the cool-season grasses alive. This created wet and soft playing conditions in portions of the golf course.

Action

A turfgrass renovation project was initiated to convert the fairways and primary roughs from a mix of turfgrasses to a uniform bermudagrass playing surface that exhibited good drought tolerance. The plan called for a 110-day closure to complete the work. The first step in the process was spraying the existing turf twice with the herbicide glyphosate. Next, the remaining organic matter from the old turf was recycled into the soil profile with a new-generation tiller. Using this process avoided the cost and environmental footprint that would have been associated with hauling the remaining organic matter off-site.



Rototilling restored the soil structure and recycled organic material from the previous grasses.

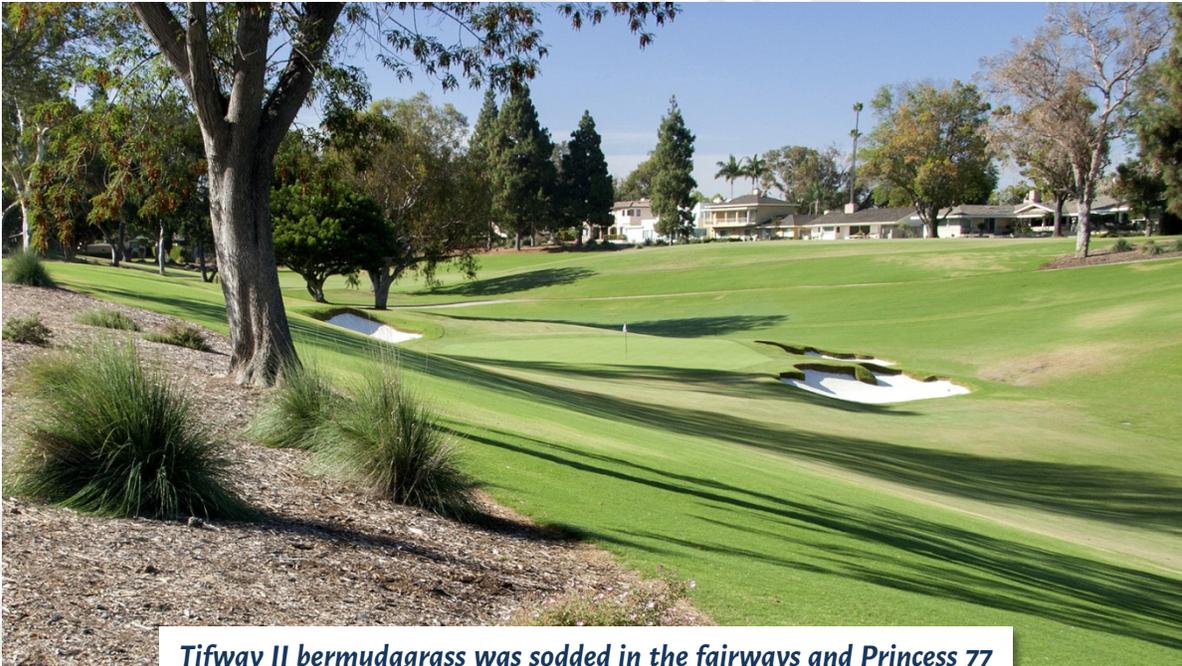
Fairways were sodded with Tifway II bermudagrass and roughs were hydroseeded with Princess 77 bermudagrass. The greens were converted to an improved variety of bentgrass that is more heat and drought tolerant. Several architectural enhancements were also made as part of the project. Thirteen acres of turfgrass were removed from out-of-play areas, bunkers were rebuilt and numerous trees were removed to improve playability and turf health.

Results

The new bermudagrass in the fairways and roughs has reduced water use and creates a dense and uniform playing surface with excellent year-round playing quality. The deep cultivation

program eliminated compaction and restored soil structure after 106 years of golfer and maintenance traffic. The combination of soil improvements and drought-tolerant grasses sets the stage for tremendous water savings in the future as the bermudagrass continues to mature.

Many courses in Southern California have already converted their primary playing surfaces to hybrid bermudagrasses and are realizing a positive return on investment with significant water savings. Millions of gallons of water are being conserved as courses throughout the West enhance their properties with new and improved warm-season grasses.



Tifway II bermudagrass was sodded in the fairways and Princess 77 bermudagrass was hydro-seeded in the rough. Densely shaded areas were candidates for the turf reduction program.