PRESIDIO GC, SAN FRANCISCO

Betting on Bent

Presidio GC superintendent Kevin Hutchins opted to resod his greens with bentgrass – in a poa annua region – to combat nematodes

BY DOUG SAUNDERS

The Presidio's maintenance crew removed the old sod by hand to preserve the greens' contours.

FREDDY BIRD

The Presidio GC in San Francisco is a historic golf course located in one of the world's great urban settings. The former military course, designed by Robert Johnston in 1895, is one of the oldest courses west of the Mississippi River. Its unique combination as a military course and a civilian private club existed until 1994, when military downsizing forced its closure.

Problem

A severe nematode infestation damaged Presidio GC's greens. Use of chemicals to eliminate the problem wasn't possible because of government regulations regarding the course.

Solution

Remove the old sod by hand and replace it with a bentgrass mixture that contained species that were nematode resistant.

But the course's land was added to the National Parks System in 1994, and the Presidio became part of the largest urban park in the country. It's the only 18-hole course on national park land.

The federal government determined the course should become public and entered into a long-term lease agreement with Arnold Palmer Golf Management to renovate and operate the course under strict federal guidelines.

In 1995, Arnold Palmer Golf Management embarked on an $8 million renovation program for the course that included a new irrigation system, resodding of tees and improving fairways.

However, renovating the greens to championship level presented the biggest challenge.

The problem

A severe nematode infestation was discovered in 1997 on the greens. Superintendent Kevin Hutchins, knowing a chemical remedy was not an option because

Kevin Hutchins, Presidio GC's superintendent, had to be creative to combat his nematode infestation.

of federal restrictions, had to find an alternative solution.

"Our mission is to operate the course with minimal chemical applications," Hutchins says. "By federal mandate, we're restricted from using many remedies available to other courses. This could be looked upon as an unfair restraint, but I look at it as a challenge and an opportunity."

During 1997 and 1998, Hutchins tried several options to battle the nematodes. He changed his fertilization rates, tried different watering rates, and used several natural nematicides. But seven months of experimenting brought few results.

The solution

So Hutchins pursued another avenue. In 1999, he presented to the Presidio Trust, the operational oversight body governing the Presidio, the option of resurfacing the greens to eradicate the problem. The committee agreed to the $500,000 project, and Hutchins developed a program to perform the task while still keeping the course open.

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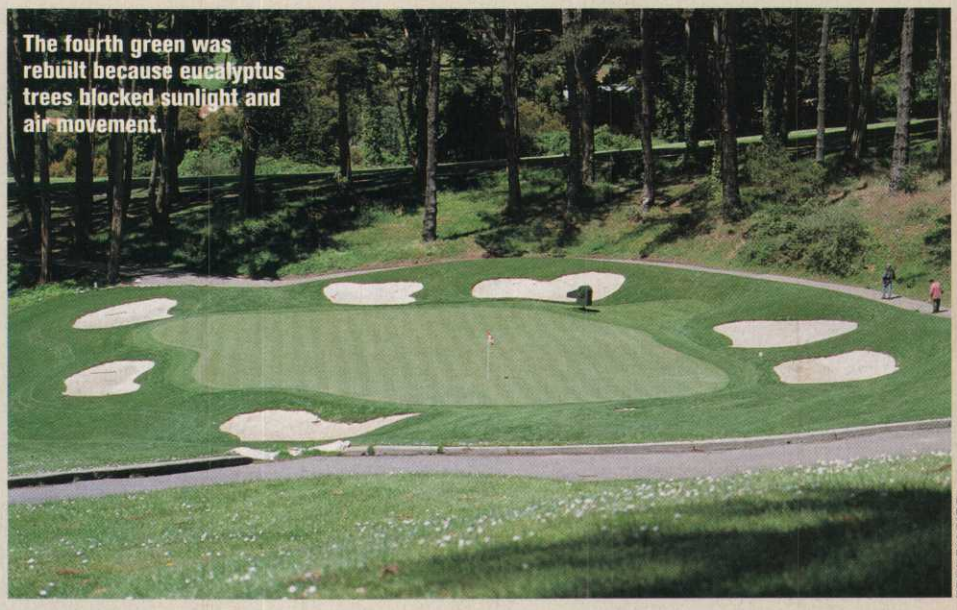
Hutchins' plan called to scrape out the old sod by hand to preserve the original contours of the greens. While the old greens were completely poa annua, the dominant grass in the San Francisco Bay area, Hutchins chose to resod them with bentgrass. Could bentgrass greens thrive in the cool, foggy climate of the area? "The choice of bentgrass was risky, but I needed to establish a grass that was resistant to the Anguina nematode variety," Hutchins explains.



The fourth green was rebuilt because eucalyptus trees blocked sunlight and air movement.

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The greens feature a combination of SR 1019, SR 1119 and SR 1020, the newest strains of disease-resistant bentgrass.

About a year after the resurfacing phase, Hutchins determined the par-3 fourth hole needed to be completely rebuilt to eliminate future problems. The green was small and sat in a low area that was surrounded by tall eucalyptus trees that blocked both sunlight and air movement.

Hutchins built the new green to twice its original size to allow for more pin placements. It was built to USGA specifications, and sub-surface drainage system was installed to increase airflow to the root system. Power was run to the green's side so fans and halogen lights could be connected to increase airflow and light intensity.

The sub-surface aeration system was constructed with 4-inch perforated PVC pipe that was laid out in a grid over the green.

The perforated pipe was routed to larger drainpipes surrounding the green that routed to natural collection areas lower than the green. A 4-inch gravel layer capped the grid for water filtration.

The 14-inch-thick root zone was created with a mix of different sands, soil conditioners, rock minerals and organic amendments. Courses around the Bay Area are taking heed to the progress of Presidio's bentgrass experiment. "All of these measures came from being creative about finding solutions," Hutchins says. ■

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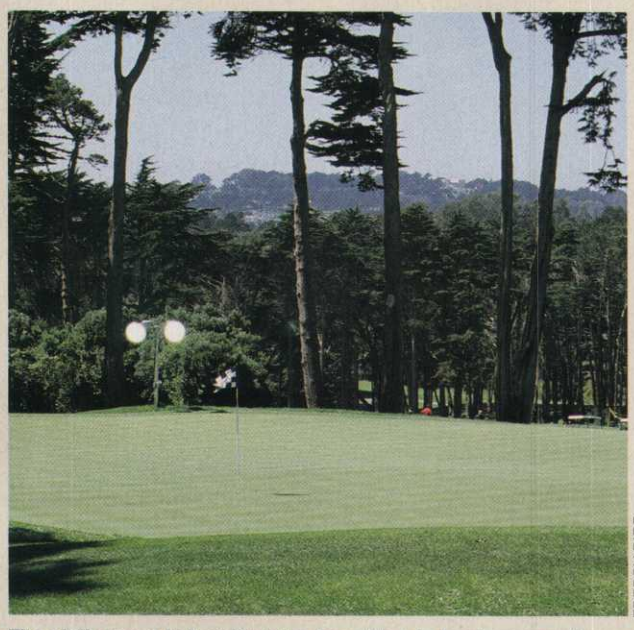

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The sixth green is handling the transition to bentgrass well, which is unusual in San Francisco's cool, foggy climate.