

Getting to the Root of the Problem

Course dug deep to eradicate its mutant bermudagrass to prepare for fairway reseeded

BY HAL PHILLIPS

Problem

Since fumigation is efficient only to a 7-inch depth, the course had to decide how to get rid of aged bermudagrass cultivars (whose root mass and rhizomes go down 8 inches or more) prior to regrassing the fairways.

Solution

Dig deeper and more thoroughly, to 10 inches, using three different tools – a scarifier, a disk harrow and a rototiller – in two different directions.

Occupying an area just west of Bal Harbour, Fla., Indian Creek CC stands apart from other Florida courses because it sits on a man-made island. Therefore, the soil profile isn't the sandy, calcareous variety found elsewhere in the region.

The Army Corps of Engineers built the island in the 1920s with material dredged from creation of the Intracoastal Waterway. The result is a soil profile that closely resembles clay.

William Flynn designed the course, which opened in 1930. He created the course with grades that varied between 5 feet and 30 feet. The design relies primarily upon surface contours for drainage, which is how the current membership wants it to remain.

But the original hybrid bermudagrass, grown more than 70 years ago, had mutated with several strains of outdated but extremely aggressive cultivars.

With open growth habits and course leaf blades, these turf types were both standard *and* extremely difficult to kill — even harder than run-of-the-mill bermuda hybrids because these particular roots and rhizomes extended to depths of 8 inches or more.

In 1996, superintendent Joe Pantaleo and architect



Ron Forse oversaw the restoration and regrassing of Indian Creek's green sites with Tifdwarf 419, and also restored the greenside bunkers. Upon completion of the project, the club resolved to also regrass the fairways. Frontier Construction Co. was retained to assist Pantaleo and Forse with the installation of 419.

The members at Indian Creek look dimly on rough because they prefer a setup featuring wall-to-wall fairways running up to greens and bunkers. As a result, Pantaleo maintains an enormous amount of fairway — 61 acres — which is nearly double the norm.

"With 124 bunkers, there are enough hazards out here," Pantaleo says. "I came on board prior to the '96 project. In fact, one of the main reasons I took this job was to be involved in a complete master plan and restoration."

The problem

Since fumigation is only ef-

To kill the mutant cultivars of bermudagrass, the soil had to be cultivated more than 8 inches deep.

fective to a depth of 7 inches, Pantaleo was worried the old bermuda hybrids wouldn't go away. Snuffing out the old turf types would be difficult enough, but the regrassing also had to be executed without altering Flynn's original contours.

"That meant nothing more than 2 inches of change in contour," Pantaleo says. "In other words, there would be no depressed, 'modern-style' inlets. Flynn surface drained the course to the outlying areas, and we wanted to keep it that way, even if it isn't a perfect scenario by modern standards."

Also, Pantaleo and Jerry Pierman (vice president of Frontier's Southeast Division) had to work carefully around the greenside bunkers so the recent restoration work wasn't compromised.

"The workload was mas-

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Real-Life Solutions

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sive," Pantaleo explains. "Since there's virtually no rough, we had to work around every bunker, including those we already restored. It would have been easy to lose the shape we achieved in '96."

When prepping the soil for regrassing, Pantaleo and Pierman had to work around a new irrigation system, also part of the '96 project.

The solution

Pantaleo regrassed two test fairways (No. 1 and No. 9) in 1999. Using this experience, he and Pierman chose a methodical and thorough preparation strategy that began last April with multiple applications of Roundup. Then they commercially stripped the sod to a 2-inch depth; the sod was buried and used to form mounding in outlying areas of the course.

Frontier then went over the entire



stripped area, about 48 acres, with a scarifier, which loosened the soil to a 10-inch depth without tearing the new irrigation pipe. Pierman's crews then went over the same 48 acres with a disk harrow (in two directions, also down to 10 inches), which further loosened the soil.

Finally, the area was rototilled in two directions at 10 inches, which loosened the soil even further and rendered it more homogenous. "Then we were ready to fumigate," Pantaleo recalls.

The regrassed fairways have grown well, without any drastic contour changes.

After approving the prepped acreage, Frontier fumigated all 48 acres, paving the way for the company to restore the fairways to Flynn's original specifications. Under direction from Forse, Frontier also fine-shaped specific areas of the fairways to improve surface drainage.

"We 'installed' hardly any drainage in the modern sense," Forse says. "We put in a few inlets with outlet drain lines, but only when absolutely necessary because we didn't want to affect the nuances of a course that's 70 years old."

The 48 acres were then regrassed with 419.

"Most of the green slopes were sodded because some are very steep," Pantaleo says, noting that sprigging could cause washout. Five acres were sodded and the rest were sprigged, he says.

The outlook

"This was a big job, a challenging process because of its scope," Pierman reports. "But we said we'd be out of there by July 15, and we were. We were fortunate to have good weather and a great working relationship with Joe [Pantaleo]."

Pantaleo reports the 419 took hold well. The course reopened for play last September, in plenty of time for the winter season. "We wanted the members to notice no changes (other than the new turf) when they came back, and I believe we accomplished that," he says. ■

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