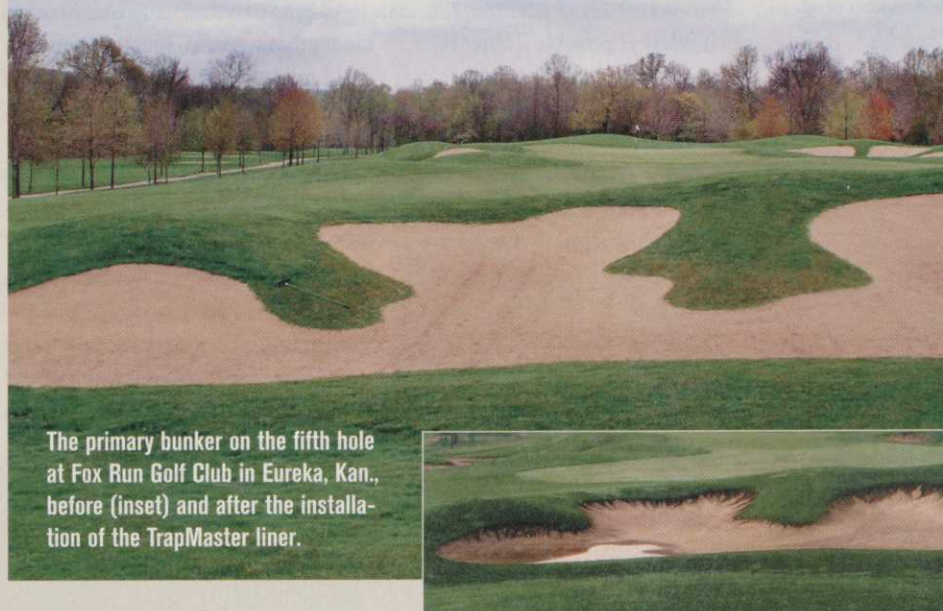


Bunker Liner Keeps Sand In, Contaminants Out

BY THOMAS SKERNIVITZ, MANAGING EDITOR



The primary bunker on the fifth hole at Fox Run Golf Club in Eureka, Kan., before (inset) and after the installation of the TrapMaster liner.

Problem

Heavy rainfall washes out and contaminates the sand in your bunkers.

Solution

The TrapMaster bunker liner, comprised of two layers of non-biodegradable polyester, allows water to penetrate its blanket layer, which encourages the sand to stay in place. Meanwhile, its spun-bond under-layer is porous enough to let water pass through but dense enough to keep sediment from rising and contaminating the sand.

Fifty-seven bunkers and there's nothing gone. With apologies to Bruce Springsteen, that's the tune superintendent Jamie Miller is humming these days at Tangle Ridge Golf Course in Grand Prairie, Texas.

One year after renovating the last of his 57 bunkers, Miller is quite satisfied with his new TrapMaster liner from TrapMaster Products. Gone are the days of losing sand to a moderate drenching and having to refill each eroded pit.

"With the old material, it didn't take much of a

rain to where you'd be out there pushing everything back up by hand," Miller says. "But now we can get a pretty good rain, say three-quarters of an inch or less, and have hardly any washing. The sand seems to cling to (the liner) up on the banks."

Another attribute is the elimination of pools of water that would allow sediment, from outside the bunker or even beneath it, to contaminate the pristine sand.

"Every time it washed, we wound up getting clay mixed in with our sand, and the sand turned brown — or browner — and it

would tend to harden on top," Miller says.

The TrapMaster is comprised of two layers of non-biodegradable polyester, meaning the product could last indefinitely. The upper blanket layer allows water to penetrate and drain evenly. In turn, sand fills the layer, keeping it in place, even on slopes with 60-degree angles. The spun-bond under-layer is porous enough to let water pass through but dense enough to keep dirt and rock from migrating upward.

In selecting a new liner, Miller ordered samples of everything he could find on the market. Because the native clay soils of Texas tend to expand and contract, he weeded out the solid-material liners and narrowed his choices to three products.

"We needed something that would flex," Miller says. "After I got to looking at the different types, I liked the open-pore kind of material that the TrapMaster and a couple other competitors offered."

The TrapMaster wound up being the least expensive of the three and, better yet, the heaviest, Miller says. "So we kind of got the best of both worlds," he adds.

Tangle Ridge spent \$200,000 on the 18-hole project, which was evenly divided between consecutive winter seasons. The cost included 455 rolls of liner to cover 4.5 acres of bunkers, as well as the labor, new sand and the gravel and pipe that were used to

simultaneously install a new drainage system.

In the long run, TrapMaster customers such as Miller hope the liner will pay for itself in the form of fewer manpower hours to maintain bunkers. John Briggs, the superintendent at Fox Run Golf Club in Eureka, Mo., says the product has reduced his post-storm recovery time from two-and-a-half days to three or four hours; from a dozen or more workers to six.

"It used to take one day to just pump the bunkers out; and then another day with a bunker raker to push all the sand up into the high flash areas; and then a third

day, after it had dried, to work the sand," Briggs says. "Now if any sand moves at all, you take a couple of shovels, throw it up, rake it out and you're good to go."

Superintendent John Anderson is confident that he'll recoup the \$164,000 he spent on liner, labor and an expensive brand of sand to renovate the 64 bunkers at Indian Hills Country Club in Mission Hills, Kan.

"We haven't had to shovel bunkers but maybe one time this year, and that was just around the edges," he says. "Before we had the TrapMaster put in, we'd have eight guys spend probably five or six hours a day pushing up bunkers and

draining them out. It will definitely pay for itself over a number of years."

In the meantime, the bunkers are no longer slaves to the weather conditions. "Our bunkers were so inconsistent before," Anderson says. "Our members appreciate the consistency now. You get into a trap, and you know what you're getting into."

Installation of the 6-foot-by-50-foot rolls requires no special knowledge or training. Miller and Briggs had their own staffs perform the work, although Miller did hire three independent laborers.

"It was about a five- to six-man process with four

different stages," Miller says. "We had a backhoe that we used to excavate the old material and reshape the bottom. Another fellow behind that did the trenching. Behind that, a third crew laid the liner. And a fourth group put the sand in. We finally got into a rhythm where we moved pretty smoothly."

Meanwhile, Anderson hired an outside contractor to reconstruct the bunkers at Indian Hills.

Anderson says he hopes to get at least six years out of his TrapMaster liner, maybe even 10. Miller is more ambitious, hoping to get 10 or 20 out of the material. ■

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