



# Fescues Emulate Scotland on the Links at Spanish Bay

**A**fter one century in this country, the game of golf only partially resembles the sport which originated amidst the coastal sand dunes of Scotland 500 years ago. The linksland course has evolved to fit the topography of this nation, changing the way the game is played in the process.

Needless to say, there is a great deal of respect around the world for what architects and designers have created here — but there is also an increasing desire by many to restore the nature of the course and the game to its original form.

In some respects, the reverence to the natural links of St. Andrews, Muirfield and Turnberry has never been greater. Proof of this is evident at a number of resort courses across the country. However, the Links at Spanish Bay in Pebble Beach, CA, may have come closest to capturing the true spirit of the original Scottish courses.

From its sand dunes fringed with uncut rough to its greens, tees and fairways of fine fescue, the Links at Spanish Bay is authentically Scottish.

The course, which opened in November 1987, was impressive enough to convince the 400 judges of Golf Digest's Best Courses to name Spanish Bay the best new resort golf course for 1988. The judges weighed design balance, memorability and aesthetics, along with shot values and playability. Not only is the course highly memorable, it's a challenge to play.

The topography along the famous 17 Mile

Drive near Monterey has certain key elements similar to the coast of Scotland: wind for example. The rocky peninsula juts out into the Pacific to form the southern rim of Monterey Bay. Nature over time has reduced the rock on the southwestern edge to white sand. Cypress and Monterey pines rooted in the rocky soil grow at an angle, bent by their exposure to an almost constant ocean breeze.

The differences are also great. Where the Scottish coast receives 40 inches of rainfall a year, Pebble Beach is lucky to get seven. Its climate is warmer than that of the Scottish coast at all times, but rarely do temperatures exceed 80 degrees. Finally, the soil of Spanish Bay is completely sand, whereas the links of Scotland consist of material carried off the island by rivers and deposited upon the sandy shore.

Furthermore, the site for Spanish Bay was not an undisturbed stretch of sand on the Monterey Peninsula. It was a sand quarry once operated by the Del Monte Company. As the white sand was shipped out for golf course bunkers, beaches and other uses, the area became an eyesore along the spectacular 17 Mile Drive. For nearly 20 years the community considered various ways to restore the beauty of the site.

In 1976, when the state legislature passed the California Coastal Act, limitations for development of the site became stringent. The Coastal Commission went so far as to

require that the area had to be restored to its original combination of sand dunes and marsh, and that non-native plants such as iceplant and pampas grass should be removed and replaced with native plant material, including golden beach poppies, pink sand verbena, lizard tail, yellow bush lupine and dune sedge.

The Palm Beach Company, which already owned two respected resorts on the Peninsula — Pebble Beach Golf Links and Spyglass Hill Golf Links — was up for the challenge. It proposed to build a \$230 million hotel and golf course on the site, restoring the sand dunes covered with coastal vegetation at the same time.

The company knew that whatever it did would be closely scrutinized by the Coastal Commission and the local community. The golf course architect it selected would have to understand the delicate nature of the project, yet still design a tournament-quality course.

A number of golf course architects wanted the assignment, including Jack Nicklaus. The final decision was up to Tom Oliver, president of the company.

Architect Robert Trent Jones II, who knows the area well, devised the best plan. He asked Frank "Sandy" Tattum, a San Francisco lawyer and former president of the USGA, and professional golfer Tom Watson to work with him on Spanish Bay.

Tattum was a traditionalist and former NCAA golf champion. As a Rhodes Scholar



at Oxford University, he had played many of the historic courses in Scotland. Watson was a five-time winner of the British Open who excelled at the "bump-and-run" game required for Scottish courses. As a member of the Stanford University golf team, he frequently played the courses at Pebble Beach. Neither Tatum or Watson had ever designed a golf course before.

"They came as a package," said Oliver. "Considering all they had to offer, it was really an overwhelming presentation."

Jones, Watson and Tatum felt that the similarities to Scotland were a tremendous resource, and that the differences could be overcome with ingenuity. Robert Trent Jones had succeeded in emulating links conditions on the first five holes at Spyglass Hill in 1965. His son and partners wanted to take the concept further by designing all 18 holes to be as close to the traditional Scottish links courses as possible.

Watson knows from personal experience

keeping the course within the ability of amateurs.

"The key to building a Scottish-type course is the fescue," claims Jones. "This is a bristly, drought-resistant grass calling for low, running shots. Many U.S. courses say they are links-like, but they don't have the right grasses, and thus lack the proper characteristics."

The design team brought in Dr. Richard Hurley, vice president of Lofts Seed, to match the Scottish turf as precisely as possible with today's varieties and to develop a maintenance program to keep them healthy and playable. The course was scheduled to open in October 1987, so Hurley had more than a year to explore all the possible problems and come up with solutions.

"There was and still is a tremendous amount of skepticism about whether fine fescues can provide the same level of quality as conventional golf turf," Hurley admits. "People said the fescue wouldn't germinate,

plots at the University, some of oldest in the country. He selected Jamestown chewings fescue out of these plots for commercial introduction.

To get a better grasp on the effects of the California climate on the fescues, Hurley contacted Dr. Victor Gibeault, a former Rhode Island staffer who is now turfgrass specialist for the University of California at Riverside.

Satisfied that he had the information he needed, Hurley put together the specifications for the seed mix. The greens would be planted with a mixture of 80 percent Jamestown chewings fescue and 20 percent Exeter colonial bentgrass. For the fairways and tees he specified straight chewings fescue. Finally, he specified a three-way mix of chewings, *Ensylva* creeping red and Reliant hard fescues for the roughs.

Red and chewings fescues form a very fine-textured, dense turf that tolerates low mowing heights, drought and acid soil. They establish faster than creeping bentgrass and Kentucky bluegrass, and have a finer texture than Kentucky bluegrass and perennial ryegrass. They also have a high shade tolerance. Hard fescues exhibit even greater drought tolerance and a lower fertility requirement. However, they are not adapted to low mowing.

Hurley's next step was to formulate a maintenance program to help the superintendent deal with the unique properties of fescues.

Current superintendent Carl Rygg, who moved to Spanish Bay from Steamboat Village Golf Course in Steamboat Springs, CO, another Jones-designed course, was more than a little grateful for Hurley's guidance. Rygg knew how bentgrass, Kentucky bluegrass and perennial ryegrass responded to fertilizers, irrigation, fungicides and herbicides. He also had heard that fine fescues don't like the levels of maintenance he was used to providing. It was going to be a learning experience for him, as it would be for everyone else.

Oddly enough, while Rygg was superintendent at Steamboat Village, he had done a favor for Walter Woods, the superintendent of St. Andrews, by putting his son on the crew for a summer. Not only did he learn a great deal about golf course management in Scotland from Woods, he later accepted an invitation to see and play the historic course. When he was hired as the assistant superintendent at Spanish Bay under Mike Phillips, he knew what Jones, Watson and Tatum had in mind.

Phillips, a ten-year veteran of the Pebble Beach Company, left Spanish Bay this past summer after the course had been open for eight months. Rygg took over at that point.

The first step in the construction of Spanish Bay was to replace the sand that had been removed when it was a quarry. A source of the same white sand was available three miles from the course. The Pebble Beach Company did not want a parade of

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**The large fescue green on the 8th hole closely resembles greens at St. Andrews.**

that true links golf is a totally different game from that played on American "parkland" courses. It is geared more to keeping the ball low and taking full advantage of the roll provided by the closely cropped fescue. Wind conditions make it virtually impossible to loft a shot at a target and expect it to hold. It was Watson's job to provide shotmaking value to the course.

When he first played golf in Scotland he didn't like it. "It took two or three years to understand it," Watson recalls. "When I did, it became an unending passion for me."

"We tried to create a course where the ball runs and to provide access to greens on the ground," says Tatum. "We created strategic parameters on every hole." Some parameters, such as the marshes, were there and could not be touched. But the dunes, pot bunkers, tall rough and native dune grasses were all positioned for a particular reason. Tatum's other interest was

wouldn't grow in, and would delay the opening of the course. If you walk the course today you'll quickly see the skeptics were wrong."

Hurley's faith in fescues dates back to his graduate work at Rutgers University under Dr. Reed Funk. He was impressed with their low maintenance requirement and high drought tolerance. When the popularity of turf-type tall fescues started to take off, he reasoned that the potential for fine fescues was unrealized in this country.

For backup, Hurley contacted Dr. Richard Skogley and Dr. Noel Jackson at the University of Rhode Island in Kingston. He needed to know exactly what to expect when chewings fescues were cut as low as 3/16 inch for greens.

Jackson is not only a pathologist familiar with fine fescues, he also grew up in Scotland. Skogley is a nationally recognized expert on fine fescues who supervises the



The 9th green (right) is surrounded by dunes, pot bunkers and tall grass.

Golfers on the 15th tee (below) must drive over a marsh.



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large trucks hauling sand down 17 Mile Drive. Instead, a three-mile-long conveyor belt was erected from the course to the sand. In this manner more than 500,000 cubic yards were transported to the site.

Both Phillips and Rygg worked with the architects and Hurley as the course took shape. Jones, Watson and Tattum were very detailed on the layout of each hole. They had the sand shaped to match the undulating terrain of Scotland's courses, which were carved by wind instead of dozers. "There isn't a flat lie on the entire course," remarks Rygg.

As the design team approved each hole, the Toro irrigation system was installed and the fescue was sown. "We were dealing with sand that was on the acid side, lacked organic matter, and had no nutrient reserve," Rygg reveals.

Normally, chewings and creeping red fescues require only require a quarter pound of nitrogen per 1,000 square feet per growing month. But these were far from normal conditions, so the rate was bumped to a half pound per month for the fairways and tees and one pound for the greens. Scotts sulfur-coated urea was the main fertilizer. It was augmented with applications of iron and other micronutrients based upon soil tests.

"We were concerned about diseases and *Poa annua*," Rygg confides. *Poa* dominates most of the courses in the cool, humid region that are maintained to conventional standards. Drier soil conditions made possible with the fescue, the use of moisture-sensing tensiometers and fertilizers with low-to-moderate amounts of potassium were utilized to discourage the encroachment of *Poa*. As a further precaution, clip-pings were removed during every mowing.

Hurley, Phillips and Rygg watched closely for any signs of *Fusarium* patch, red thread and *Ophiobolus* patch, the main disease threats to fescues. As the grass established, the crew started applying Rubigan to the greens and tees. Not only did the fungicide prevent disease, it was another enemy of the *Poa*. "We don't have as much pink snow mold as other courses in the area," Rygg points out. He alternates Rubigan with Daconil 2787 and PCNB to prevent development of resistance.

By using a Toro VT3 video central controller, irrigation was carefully kept as low as possible, especially during the winter when morning dew is heaviest. In the fall, nitrogen rates were cut in half and Subdue was applied. It wasn't long before the fescue roots extended six or more inches into the sand.

"Once we had the turf up and growing, we started to experiment," Rygg recalls. "Early on, we were afraid to fertilize or irrigate too much. As things progressed, we learned that fescues like nitrogen and water, although they don't require them. We also learned that regular overseeding with more fescue is important for a variety of reasons."

As the date for opening approached, the crew concentrated on the greens. "Scottish greens are slower than American bentgrass greens," Rygg remarks. "To speed them up from a Stimpmeter reading of about seven, we lowered the height to 3/16 inch and started double cutting. We had them up to almost nine for the opening, but we paid a price later. Eight of the greens started to thin out."

Hurley and the crew traced the problem back to the way peat was mixed with the sand on those particular greens. Instead of mixing the peat and sand before it was transported to those greens, a rototiller had been used to mix them on site. "A layer of peat had formed," Rygg points out. To solve the problem, the greens were aerified and the height of cut was raised to 1/4 inch.

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The 18th hole prior to construction.



The same hole following construction accented with dune grasses.

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Greens and tees were lightly topdressed every two weeks with the sand/peat mix. "Now we topdress once a month and aerify once in the spring and once in the fall."

Another thing that Rygg noticed was that the thatch fescues tend to build does not affect their performance. "Thatch is part of the Scottish nature of the course," Rygg adds. "The fescues seem to thrive in two or three inches of thatch because they are so deep rooted." However, he is adding a groomer attachment to his walk-behind greens mowers this winter to control the thatch on the greens.

The tees have also baffled skeptics by withstanding everything thrown at them. "The fescue takes abuse as good or better than ryegrass and Kentucky bluegrass," says Rygg. "It seems to resist divots because it's so dense and we don't have to keep the tees as wet. A divot here is rarely bigger than a half inch. We also have a divot bombing program where the crew places a mixture of seed, sand and peat to every divot they see. We mow them with walk-behind greensmowers at 5/8 inch, fertilize with a half pound of nitrogen per month and overseed them frequently."

Mowing the undulating fairways at 5/8 inch without scalping has been a challenge for Rygg and his crew. "Fortunately, because we have fescue we don't have to mow as low or as often as we would other grasses," he states. "Fescues grow more slowly than conventional golf course grasses. They also don't change the golf shot as they grow, because the dense, narrow shoots prevent flier lies."

"We can't use big equipment on the fairways, so we mow with 72-inch triplex Toros with hydraulically driven ten-bladed reels." These are fitted with baskets to remove any Poa seedheads and

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to control thatch. "If you stand on top of a dune, you can see that the Poa invades in the low spots but never gets started on top of the mounds." In the spring and fall, Poa is sprayed with a tank mix of endo-thall. Rygg plans to hit the Poa in low spots with glyphosate and reseed. "Overall, we have maybe one percent Poa on the fairways."

Broadleaf weeds are easily controlled with postemergent herbicides but Rygg does fight crabgrass, kikuyugrass, and tall fescue that invade the course. "Since we are constantly reseeding we avoid using preemergent herbicides," says Rygg. That forces the crew to pull grassy weeds by hand. He would like to experiment with Acclaim, a selective grassy weed control from Hoechst, but it is not currently registered in California.

An overseeding program is an important part of the maintenance of fairways, tees and greens. In addition to spot seeding, Rygg keeps a tractor-mounted slicer/seeder and Ryan Renovaire busy most of the year.

"I'd rather spend money on seed at this point than experiment alot with chemicals," Rygg admits. "It's no different than using ryegrass on conventional golf courses to maintain density and uniformity. Overseeding gives the golfer the best possible conditions for his game."

The short rough constitutes a four-foot-



A bagpiper adds to the authenticity of Spanish Bay by playing every evening at dusk.

wide ring around the fairways. Cut at 1½ inch with a National reel mower, it serves as a last-hope barrier between the fairway and the tall rough. Both short and tall rough receive only two applications of fertilizer each year, being maintenance-free for the most part. During the summer the tall rough has a brownish-green cast that warns golfers of impending doom if their shot ventures into it.

The deep-rooted fescue also holds together the steep walls of numerous pot bunkers strategically spread throughout the course. Combined with the tall rough, dunes, marshes, and constant wind, pot bunkers send the message to the golfer that nature is his toughest opponent on the course, exactly as it is in Scotland.

In fact, at sunset the golfer might swear that he really is in Scotland when a kilted musician plays his bagpipe from the atop the dunes near the hotel.

With more than 100 golf courses under his belt, Robert Trent Jones II continues to make golf courses blend into their surroundings. With the Links at Spanish Bay, Jones has achieved another goal: to give American golfers the authentic experience of linksland golf.

Jones, Watson, Tattum, Hurley and Rygg all seem to agree that fine fescue is an inseparable part of that experience. They are also convinced that fescues can be maintained satisfactorily in this country for golfers to enjoy. ●

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