SEED



ew aspects of agronomy will surprise you after you've worked at multiple golf courses for multiple decades. Richard Haas, CGCS, thought he'd seen it all in 2002. That's when he took 20 years of experience as a superintendent and international project manager to Missoula, Mont., where more than 100,000 rounds of golf are played annually, to build and open The Ranch Club.

Haas moved to Montana from Northern California, where he maintained bentgrass greens with ryegrass and bluegrass fairways. Before that, he was in Southeast Asia, where he relied heavily on Bermudagrass cultivars in the Philippines, Taiwan, China and Japan as a project manager/superintendent with the Robert Trent Jones II group. When Haas arrived in Missoula, he learned that the tried-and-true Montana turfgrass on golf courses is bluegrass, with bentgrass greens.

When the time came for Haas to choose the playing surface for a new golf course, he didn't reinvent the wheel, but he did make a few modifications based on his own research and experience. He elected to grow in his greens with L-93 creeping bentgrass, seed three varieties of Kentucky bluegrass on the fairways and tees, and plant four types of fine fescue in the rough. All turf, aside from the L-93, was hydroseeded. The grow-in process was smooth and successful, despite the challenging tight clay soil.

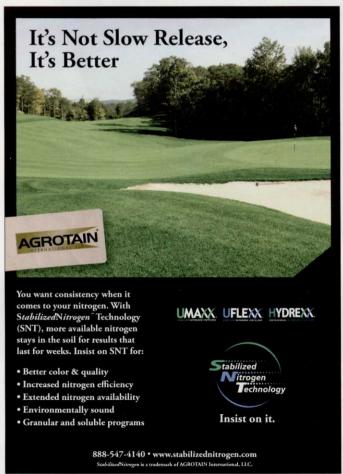
As the greens grew in, Haas became locked in a battle with the L-93, fighting desperately (and unsuccessfully) to maintain a tight-knit stand. The grass also was reluctant to emerge from the harsh Montana winter.

"We didn't get our L-93 to what I would consider even acceptable standards until July 4," Haas says. "The color was off, and it didn't grow well. It still putted well for us, but golfers don't want dingy-looking greens. They want dark greens."

Realizing L-93 performs best in warmer climates, Haas decided to take another shot at grow-in perfection in Missoula. In August 2004, once the turf at The Ranch Club had grown in completely, he headed up the road to Missoula's daily-fee Canyon River Golf Club. Construction at Canyon River had been halted three years earlier, post-Sept. 11. The owners brought Haas in to see the course to completion, and, armed with pages of notes about his successes and failures at The Ranch Club, he was ready with a plan of action. Pleased with his Jacklin products at The Ranch Club, Haas worked with the company to determine the best grass varieties for Canyon River. Douglas Brede, Ph.D., research director and operating officer of Jacklin, showed Haas the latest research about their latest bentgrass cultivar, T-1, and highly recommended it for the new course.



Richard Haas stands on two-week-old T-1 bentgrass at Canyon River. He and his crew never mowed greens shorter than 1/8 of an inch (below). Photos: Richard Haas



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"Once I saw pictures of T-1 on a golf course, I said, 'I can't not try it,"

The superintendent and his crew planted the T-1 on the greens and were quite pleased with the results throughout the grow-in process, and afterwards.

"I consider it the miracle grass for greens," Haas says. "With a magnifying glass, you could see germination in three days. We were mowing within the first 14 to 16 days. In the spring - late March, early April - we had dark green greens that came out of winter quickly. It putted phenomenally. We had some of the best putting conditions you could find in the Northwest when the course opened."

Haas never cut his T-1 shorter than 1/8 of an inch and was able to achieve green speeds between 10.5 and 11.5. Then, in 2007, Canyon River held a local pro-am. Haas and his crew double-cut and rolled the greens daily to prepare for the event, and during the tournament, green speeds peaked at 14. Players were blown away, Haas says.

"We proved we could get the greens fast without sacrificing the turfgrass plant by cutting too low," he says.

The T-1 grass is fine-textured yet dense, with strong upright growth, Haas says, so he made sure to stick to a strict schedule of topdressing and verticutting every two weeks.

"The canopy is tight, so to get the sand in, we had to lay it down first and verticut it in," Haas says. "That was a trick I used for Bermudagrass because the canopies were tight, and I didn't want that sand to sit on top of the canopy and wash in. After we topdressed and verticut, we never had complaints because the putting surface didn't change."

The golf season at Canyon River runs April 1 to Nov. 1, so Haas began verticutting in early March and continued through to April. He put down final topdressing applications in mid to late October to protect the crowns through the winter.

Haas also was pleased with the ballmark recovery of the T-1. In its first season, the greens were somewhat slow to recover from wear, but Brede advised Haas to wait another year until the plant matured completely. Although he was skeptical, Haas kept a patient eye on the greens until the following season.

"When 2007 rolled around, the plants did mature, and ballmark recovery was wonderful," Haas says.

Another challenge at Canyon River presented itself as the fine fescue secondary rough grew in. These areas weren't irrigated, and in Montana, where most of the rain falls in April and May amid low temperatures, the daytime summer temperatures resulted in weed problems.

"If I had to do it again, I'd have at least temporary irrigation during grow in," Haas says.

The fescue also grew in a bit thicker than Haas planned. He seeded the fairway at 3 pounds per 1,000 square feet.

"I should have cut the seed quantity down to 1.5 or 2 pounds per 1,000," he says. "We also seeded a little ryegrass in with the bluegrass, but I wouldn't do that again. Ryegrass is clumpy, and it can produce thicker stems that don't cut well."

Perfectionists are never satisfied because there's always room for improvement. Haas left Canyon River in February to pursue a new project later this year in the Middle East, Eastern Europe or possibly Asia.

"Once you do construction, it's hard to get it out of your blood," Haas says. "It's different every single day." GCI

BY MARGARET HEPP

## A-OK

In his first superintendent job, an Oregon native seeds a course close to home and reaps the rewards

C ome say hindsight is 20-20, but David Phipps, superintendent at Stone Creek Golf Course, says hindsight is A-1.

As construction project manager and golf course superintendent from the beginning at the course in Oregon City, Ore., Phipps was in the driver's seat for all turf decisions. He chose to seed Tee-2-Green's creeping bentgrass cultivar PennLinks on his greens during the 2001 grow-in.

Once the greens were established with PennLinks, Phipps realized the benefits of other grasses he'd considered that were more tightly knit. He needed a bentgrass variety that would be more effective at fighting annual bluegrass. So, he went back to Tee-2-Green for advice. The company strongly recommended Penn A-1, a creeping bentgrass Phipps eventually purchased and interseeded in conjunction with each aerification. The A-1 has been part of the Stone Creek greens for four years. Phipps continues to spread 1/4 to 1/3 of a pound of bentgrass

seed per 1,000 square feet after aerifying and verticutting. Each application, consisting of two pails, 25 pounds per nine holes, costs about \$200. To apply the seed, Phipps starts by aerifying, cleaning and topdressing the greens, then goes over the greens in a crisscross pattern with a spreader set at a low speed.

"In retrospect, it would have been great to use A-1 from the start," Phipps says. "It's necessary to keep throwing seed in the ground. Poa annua freely seeds year round and builds its own seed bank, so why shouldn't we build a seed bank with bentgrass as well? As of now, my greens are probably 95 percent clean."

Since the A-1 has grown in, Phipps has seen a significant change in the texture of the greens, and he's pleased with his new, tightly knit bentgrass. To keep the greens exactly as he likes, Phipps changed his fertilizer applications. He's using more now than in years past, but he's improving quality.



Above: New Penn A-1 roots in the soil profile at Stone Creek Golf Course. Right: Mike Turley, assistant superintendent at Stone Creek, will seed the greens in a crisscross pattern with the spreader set at a low speed. Photos: David Phipps





Phipps and Turley spread 1/4 to 1/3 of a pound of bentgrass seed per 1,000 square feet after aerifying and verticutting. Photo: David Phipps



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"I originally started out using about 3 pounds of fertilizer a year," he says. "At 60,000 rounds a year, the greens take a beating. I had to bump the nitrogen level up, and once I did, I saw significant improvement."

The greens are primarily on a sulfate diet, including ammonium sulfate, potassium sulfate, ferrous sulfate, zinc sulfate and other nutrients Phipps mixes together and sprays on the turf.

"I'm probably applying about 5.5 to 6 pounds of fertilizer annually on the greens," he says. "That's what I've found they require with play, and I can keep the green speeds between nine and 10."

Fungicide applications on the greens range in frequency from two to four times a year, usually to combat summer stress with a Chipco Signature (fosetyl) and Daconil Ultrex (chlorothalonil) mix. It helps keep the greens strong through a heavy wet period.

Elements of weather and frequency at Stone Creek are two of Phipps' biggest maintenance difficulties. He tries to aerate the greens between two and six times a year, optimally opening up the greens every 45 days, but his plans aren't always executed according to schedule.

"I'm always playing a game with Mother Nature," he says. "It's difficult to find the opportunity to verticut, aerate and topdress regularly. Our crew arrives at 4:30 a.m., and they try to seed, brush and mow before play hits us at 5:30 a.m."

Hubbard, Ore., where Tee-2-Green is headquartered, is 15 miles from Oregon City, and Phipps says location alone gives A-1 an advantage over other varieties in his book. Still, while Phipps is content with his A-1 for now, he's always looking for ways to improve. He seeded a nursery with Jacklin's Alpha creeping bentgrass to compare it firsthand to Penn A-1.

"There are some great varieties out there," Phipps says. "I've played some Alpha greens that are phenomenal. I'm not opposed to trying other grasses, but if I grew in another golf course, I'd want to do some further research. Alpha and A-1 are very close."

Phipps has no intention of reseeding his greens in the near future. And though golfers at Stone Creek haven't commented on any difference in the greens since Phipps interseeded with A-1, he considers that a positive.

"The lack of complaints is always a good thing," he says. GCI