'Princess' Royal

New seeded hybrid bermudagrass features fine leaf texture, color and density – just what superintendent needed to grow grass in the desert

BY LARRY AYLWARD, EDITOR

The fairways at Cimarron Golf Resort’s Long Course are much easier to maintain after being overseeded with Princess 77.

Problem
The cost of maintaining ryegrass – in money and man-hours – proved to be too much at Cimarron Golf Resort’s Long Course, located near Palm Springs, Calif., where the heat can knock you to your knees in the summer.

Solution
Overseed the ryegrass in the spring with a new dense, fine-textured hybrid bermudagrass variety that’s available in seeded form. The cultivar has “outstanding” drought tolerance.

The decision-makers decided to open Cimarron Golf Resort’s Long Course in January 2000. Good idea. Why not garner some business for the new course early in the year instead of waiting to open in the spring?

There was a problem, however. Being located near Palm Springs, Calif., — where the sun shines 350 days a year and the intense heat can knock you to your knees in the summer — you’d think they’d want to carpet the course almost entirely with bermudagrass. But here’s the deal: Most everybody involved with the grow-in in the fall of 1999 knew that bermudagrass fairways wouldn’t fly during the early months of the year. There just wouldn’t be enough heat and humidity at that time to spark the bermudagrass and get it growing flush and green.

So the decision-makers elected to grow-in the tees and greens with Tifdfwraf bermudagrass, but they made the controversial decision to grow-in the fairways and roughs with ryegrass. They knew that — with the dog days of summer napping for the winter — the ryegrass would germinate quickly and the course would be ready for play in January.

The decision-makers were correct, golfers came to Cimarron and all was cool at the course. Or was it?

The problem
Most agronomic experts will tell you that it’s risky business to grow a cool-season grass in a region where the sun sears and the heat index soars for several months during the year. Ryegrass can grow in Palm Springs during the cool months. But in the summer?

Cimarron’s decision-makers elected not to overseed the fairways in the spring with bermudagrass. They wanted to see if the ryegrass fairways could hold their own in the desert heat. The weight of their decision was left on the shoulders of the course’s maintenance staff, including Mario Aguiar, assistant superintendent of the course at the time and now its head superintendent.

Aguiar, who has been with the course since its grow-in, says he knew that he and the crew were in for a challenge.

“But I felt that if we could pull it off, we’d be heroes,” he says. “If we didn’t pull it off … well, nobody expected us to.”

Aguiar says many of his peers told him
there was no way the crew would be able to keep the ryegrass alive during the summer. But Aguiar and the others proved them wrong and kept the ryegrass fairways going for three summers. However, it was a very labor-intensive and sweat-profusing three summers.

"I was here day and night," Aguiar says. "August was especially brutal."

Aguiar says he became one of the course's soldiers in the fight against the continuous threat of turf disease, especially pythium.

"There was a lot of disease with the heat and humidity," he says. "We were always spraying fungicides, especially when the heat index rose, and we were prone to disease."

When the crew fertilized the course, the disease pressure was even greater. Aguiar says the crew sprayed fungicide covering 65 acres about once every two weeks. If he saw a patch of pythium, Aguiar knew he had to act quickly to contain it, or it was going to spread quicker than he could say azoxystrobin three times fast. "I was constantly monitoring temperatures and when to spray," Aguiar says.

Irrigation was another delicate project. Because Aguiar and the crew were spraying so much fungicide, they couldn't water the course on a whim. When they did turn on the irrigation system, it was only for a few minutes every two hours just to cool off the ryegrass. They knew that too much water would only provoke more disease.

Finally, during the 2002 season, Aguiar says the maintenance crew and the course's decision-makers jointly recognized that maintaining the ryegrass was too expensive and too time-consuming. The fungicide, water and electrical costs — not to mention manhours — associated with keeping the ryegrass alive were too high. A change had to be made. "We finally realized it wasn't making any sense," Aguiar says.

The solution

Last spring, the decision was made to overseed the ryegrass fairways with bermudagrass.

"We had wanted to overseed with the bermudagrass for two years, but the money wasn't available," Aguiar says. "But then we realized our thinking didn't make sense. We were spending more on water, electricity and labor to keep the rye alive in a year than we would on overseeding."

Aguiar, who was promoted to superintendent of Cimarron's Long Course in June, says he and others researched what type of bermudagrass to use for overseeding. They settled on a new seeded hybrid cultivar called Princess 77, developed by plant breeder Arden Baltensperger of Seeds West, a division of Pennington Seed. West Coast Turf is marketing Princess 77 as seed, sod and stolons.

Seeds West says that Princess 77 is the first dense, fine-textured hybrid bermudagrass variety available in seeded form. It's produced much like hybrid seed corn, according to Charlie Rodgers, research director for Seeds West. But instead of two inbred parent lines, two self-incompatible but cross-fertile parent clones are planted in alternating rows, Rodgers says. The specific combining ability of these two elite parent clones is what makes Princess 77 the first seeded bermudagrass that is competitive with the vegetative hybrid bermudagrasses for turfgrass quality, leaf texture, color and density, Rodgers says.

"The reason we're excited about it and want to be involved with it is because it takes on all or many of the characteristics of the vegetative propagated grasses," says Jeff Cole, spokesman for West Coast Turf, who adds that Princess 77's characteristics are what superintendents desire in bermudagrass. "They want something that's going to give them the playability, the repair and the wear tolerance."

Seeds West says Princess 77 features "outstanding" drought tolerance and requires 21 percent less water than Tifway.

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Superintendent Mario Aguiar says the course will save several thousand dollars a month in the summer, thanks to Princess 77.

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Aguiar says Cimarron tested Princess 77 on three fairways before he committed using it on the entire course. Aguiar wanted to see how Princess 77 held up under traffic, and how much water and fertilizer it needed to grow. He was impressed.

“We saw germination with two weeks,” Aguiar says. “We couldn’t believe the density we had within a month.”

Princess 77 passed the test, and Aguiar and his crew overseeded the rest of the course’s fairways. It took about three days to overseed with a slice seeder, and the course didn’t have to be closed.

Outlook

Aguiar says playability was excellent soon after the conversion. “We were mowing at a quarter of an inch, and the fairways looked tight,” he adds.

Aguiar says Princess 77 seed is expensive but cost-effective.

“The seed is much less expensive than sod,” he says. “The big thing is that hybrids aren’t usually available in seeded form. I’m happy with it.”

In November, Aguiar and his crew overseeded the established bermudagrass with rye grass for the winter season. Aguiar expects the course’s fairways to transition well back to bermuda when the weather gets warmer.

The best thing about Princess 77 is that maintenance is much easier on Aguiar and his crew. The course’s budget is also in good standing. Aguiar expects the course to save $18,000 a month on pesticides, water, electricity and any other maintenance costs that come with tending ryegrass in the summer months.

“Trying to grow ryegrass all year round, especially in the summer, is a headache,” Aguiar says. “I can’t believe I did it for three years, but it was a good experience.”

But changing to Princess 77 so the course’s fairways could withstand Palm Springs’ infamous desert heat is a much better experience, Aguiar adds.

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