

Furnace Creek Golf Course
in Death Valley, Calif.

If You Can't Take the Heat... Get out of Death Valley

Growing Grass in Death Valley's Furnace Creek Golf Course. By Stacie Zinn Roberts

It's noon on a Thursday at the end of May and it's already 117-degrees. But that's nothing. In just a few months, overnight temps will hover around 100-degrees. The scorching days could push past the 130-mark. Now imagine growing grass under these conditions. Such is the life of Chris Bessette, golf course superintendent at Furnace Creek Golf Course in Death Valley, Calif., one of the hottest, driest places on earth.

Furnace Creek is literally an oasis in the desert. The closest town, Pahrump, Nevada, is a

good hour drive by car. Between here and there, the open expanse of barren desert wasteland stretches out over dry creek beds, dusty ravines, rock-strewn plateaus and towering mountains.

Still, people from all over the world come to Furnace Creek Inn & Ranch Resort. The stay at the hotel, swim in the pool and play golf. The 18-hole course supports about 10,000 rounds of golf per year at the resort, located on the only privately owned land within Death Valley National Park. Visitors come to experience for themselves how hot is

hot. Bessette says busloads of European and Asian tourists are a common sight in the summer. They take pictures in front of the thermometer to show off to friends back home.

What does 131-degrees, the hottest Bessette has experienced in Death Valley, feel like? "It's so hot that people would not believe it. Picture your head in front of the oven door. You move your head but there's nowhere to go," Bessette says.

The heat is a real issue when scheduling maintenance projects on the course. In the summer, work begins at 5:00 a.m. and ends at 1:30 p.m., unless it gets too hot. "Above 123-degrees, I send them home. We haven't lost anybody yet," Bessette says with a chuckle.

Maintaining a full crew, though, is a challenge. Bessette says he's supposed to have an

eight-person crew, including himself. Right now, he's running the course with the help of five staffers. Since there's no town nearby to draw employees from, he advertises widely on the internet, in magazines and in newspapers. "People generally look at it and say, 'You want me to move where? Temps will be what? For how much money? You've got to be kidding,'" he says.

But Bessette says there are some real benefits of working in such isolation. All of the staff lives on property. He describes it as "like a small town." Bessette and his wife Henny, who also works at the resort, live in a house rent-free. They don't pay for electric or satellite t.v., and can eat for free in the employee dining hall. At 61-years old, Bessette says the arrangement "was a big part of what attracted us

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here. Instead of putting money into a mortgage or rent, I might be able to retire someday.”

His staff lives “in a dorm situation and pays some rent, maybe \$30 a pay day, but they still get free breakfast and lunch, and dinner is \$3.”

Furnace Creek is owned by Xanterra Parks & Resorts. The company operates resorts and lodging facilities in various State and National Parks including Yellowstone, Mount Rushmore and the Grand Canyon. One of the appeals of working for a company like Xanterra, Bessette says, is that staffers can apply to transfer between facilities, having the ability to live in some of the most unique places in the country.

“When I looked at it, I went ‘Wow, there’s no houses around it. That means there’s no men’s club, no women’s club, no senior club, no board of directors. There’s nobody to complain that your water’s getting in my yard, your tree branch is hanging over the fence, the grass in somebody else’s section of the golf course looks better than mine.’ You don’t have any of that. And so I went, ‘Wow, that would be interesting, wouldn’t it?’ Bessette says.

He was also attracted by the stark beauty of the place.

“On one side of us we have a mountain range that’s 8,000-foot-high, and on the other side of us, it’s 12,000-foot-high. So every place you look, it’s just really nice scenery. It’s very quiet and peaceful out here. We

have more wildlife than anybody would guess. We have a population of coyotes that live here and they’re very comfortable with people as we are with them. We have roadrunners, rabbits, we have ponds, of course, on the golf course so we’re a natural bird sanctuary,” Bessette says.

The first three holes at Furnace Creek Golf Course were built in 1927, giving it the distinction of being the first grass golf course in the California desert region. It was expanded to a full nine in 1931. The second nine was added in 1968. Perry Dye redesigned the course in 1997, and installed an irrigation system and sulfur burner to lower the pH from about 8.3 down to a grass-friendly 6.5. The course is grassed with common Bermudagrass except for the greens which are 328-Tifgreen Bermudagrass.

Furnace Creek is also the world’s lowest golf course, sitting at 214-feet below sea level. While the lack of elevation poses no maintenance issues, it does wreak havoc on ball roll.

To describe the affect, Bessette used the analogy of how kickers in football love to play at Mile High Stadium in Denver because the altitude makes the ball fly farther. “We have the opposite effect. The ball won’t go as far as you’re used to. You’ll need one extra club than you’re used to. If it’s cold, maybe two clubs,” Bessette says.

The deviation was enough to prompt Golf Digest magazine to name Furnace Creek to the

March 2007 list of America’s 50 Toughest Courses, saying that along with the challenges of playing in extreme heat, “the barometric pressure makes the ball go even shorter and more crooked than usual.”

Water management is a big part of Bessette’s job at Furnace Creek. The golf course and resort are made possible by the existence of three springs in the mountains beyond the property. The water that comes bubbling up out of the ground is stored in a large holding tank and then funneled down to the two swimming pools on the property.

“We label the pools as spring-fed and that means we can’t put chemicals in the water. We have to circulate the water according to how many people use the pool, on average. The circulated water from the pools is what comes to me in underground pipes and goes into my irrigation pond. That is the amount of water I get to use. It varies a lot and the problem is, it’s always the opposite that I need. In the wintertime, when I don’t need very much water, then I’m flooded. I have too much,” Bessette says. To store the excess water in the winter, he moves the water

through a series of holding ponds on the property.

“In the summertime, we have to put out enough water but the pools don’t keep up with the amount that we need. So, they have to bump up the amount of water that circulates through the pools in order to give me enough to keep the golf course irrigated,” he says.

Furnace Creek is a Certified Audubon Cooperative Sanctuary, through the Audubon International environmental program. Bessette felt the most obvious way to start in the certification process, which was achieved about four years ago, was with water conservation.

“We started cutting back and going off of our ET figures instead of just throwing out water everywhere. Then we looked at ways where we could cut back during the summer months when we have almost no play. It’s usually just employees and we keep the golf course open. But we turn the water off on our driving range and we save a significant amount of water there. We turn our rough down to 70 percent of ET. It gets a little dry, a little bit yellowed, but like I say, there’s almost no outside



Three springs in the mountains beyond the property feed water to the course.

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play, it's almost all employees so we all know that and we all put up with it," Besette says.

His methodology for maintaining the golf course seems to be one of working smarter, and not being afraid to try something new.

The weather station at Furnace Creek is tied by computer into the irrigation system. "At night I set it so that my computer goes off of the weather station. So if I have 2.7 ET, that's what the computer will put out, that amount of water to make up for what was lost yesterday. We try to run it at 90 - 95 percent of ET and that gives us a little leeway so that in the middle of the day we can send some people out to hand water dry spots," he says.

Up until about 5 years ago, the dormant Bermudagrass was overseeded in the winter.

But that proved to be a challenge in trying to time the Bermudagrass coming out of dormancy with the ability of the ryegrass and *Poa trivialis* filling in. The greens were slow. Now, Besette says, he simply paints greens, tees and fairways. He says, "It's worked out better than anyone could have imagined." The greens play faster. The only real difference, he says, is that divots don't fill in so there are more divots on the course in winter.

Besette also uses some good common sense to work with weeds on the golf course.

"Cattails have been a problem here forever. They had cattails that were 8 feet tall and they'd go out and spray gallons and gallons of Roundup on them. So what I decided to do was, cut them down first. Then when they start to grow and they're only 6 inches tall, then we spray the Roundup on it. So we're only spraying about a tenth of what we did in the past. We found other ways where we could mechanically removed weeds instead of spraying chemicals on them," Besette says.

Besette began his career as a member of the maintenance crew at Pebble Beach and he's spent his career maintaining golf courses in California. "One thing that's strange - this is my sixth golf course. Before I was here, I never had an interview with anybody. Since I've been here I've been on TV four times, and had three or four different magazine articles," he says, laughing. "You gotta go to the middle of nowhere to get recognized." **GCI**



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