BY JOHN WALSH

An ongoing battle

A superintendent in New Mexicao experiments with wetting agents to combat localized dry spots

For Steve Campbell, wetting agents aren't a miracle product; they're just another gun in the arsenal of turfgrass management.

"If you know how to use them and what they're supposed to do, they work," says Campbell, director of agronomy at Las Campanas, a 36-hole facility that sits on 5,000 acres of high desert in Santa Fe, N.M. "If you don't know what they do, you won't get good results. There's no 'follow A, B, C and D,' and you'll be successful. Find out what your problems are and figure out how to fix them. If wetting agents work for me, I believe they'll work for everyone if they apply them to their individual needs and situations. Each golf course is different. You don't treat them all the same."

Campbell manages 100 employees and runs the golf course, landscape, public works and revegetation divisions at Las Campanas, a Lyle Anderson development. Budgets are confidential, but Campbell's is more than $1 million.

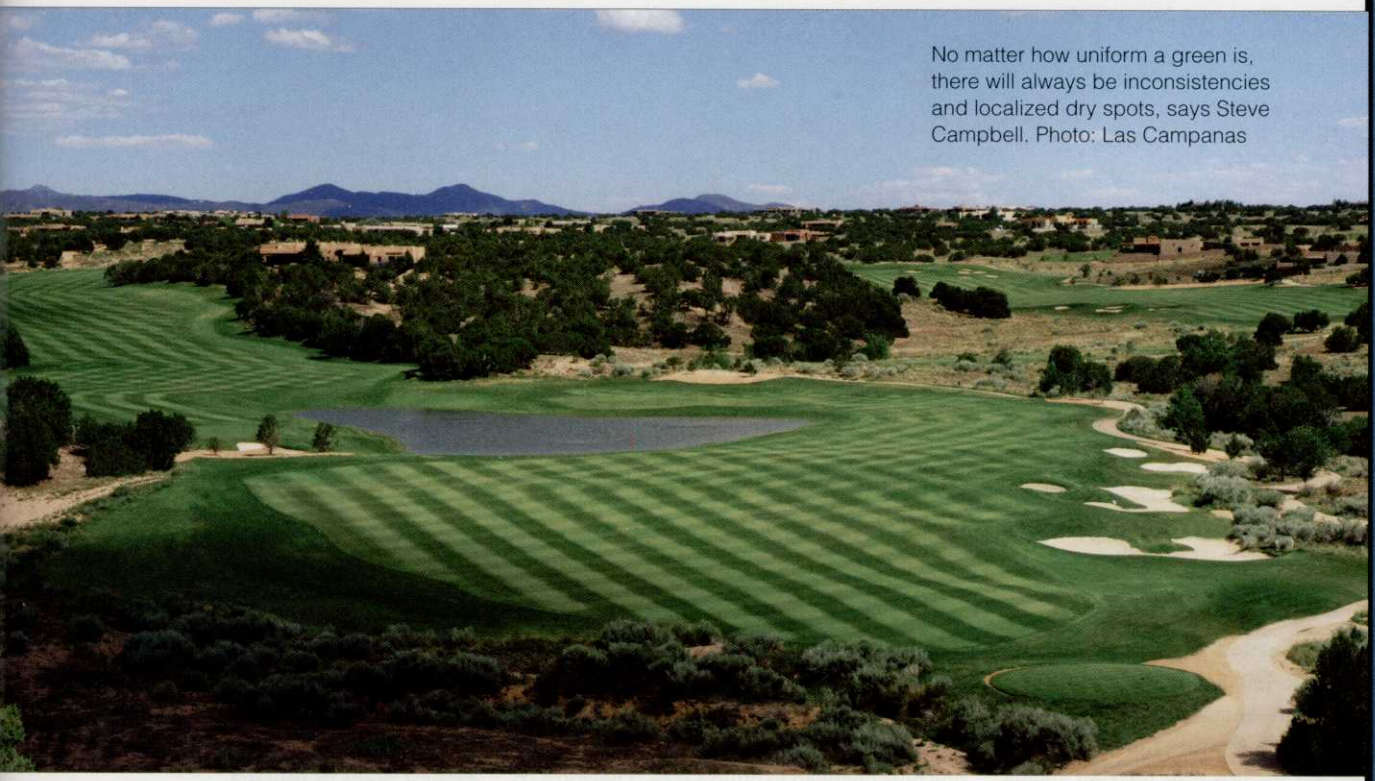
Campbell, who's been at Las Campanas for 12 years, is a big believer of wetting agents and has used them his entire career. He injects wetting agents into the irrigation system, using $^{1}/_{16}$ to ¼ of an ounce per thousand square feet of turf per day.

Las Campanas receives just 12 inches of rainfall a year, so water is king.

"I need to make water wetter to conserve and use every drop," Campbell says. "Wetting agents break the surface tension of the water droplet and force it to go into the soil."

Under water conservation mandates, the most water Campbell can use per golf course per day is 600,000 gallons, even though he says he can use less than that during less stressful months of the year. Determining

Superintendent Steve Campbell uses eight ounces of wetting agent per thousand square feet every two weeks. Photo: Las Campanas



No matter how uniform a green is, there will always be inconsistencies and localized dry spots, says Steve Campbell. Photo: Las Campanas

how much water he uses is a complicated system, he says. He checks water use every morning via a computerized monitoring system and reports it monthly. Other parties, namely municipalities, can check his water use daily if desired.

The water is high in salts and bicarbonates, which makes it difficult for Campbell to flush the soil. He can flush salts down into the soil profile with the annual 12 inches of rainfall and the wetting agents he uses.

The bentgrass Campbell grows isn't native to the area. He says there has been ongoing talk about changing the turf, but the native grasses (buffalograss, for example) would never be used because they wouldn't survive if cut at turf heights.

"I have bentgrass on greens, tees and fairways," he says. "The temperature will go down to zero degrees Fahrenheit in the winter, and if I don't have snow cover, I irrigate the turf once a week because the plant will freeze dry if I don't because of the high winds and very low humidity. The crown needs to stay wet or it desiccates. We're at 7,000-feet elevation. The Rocky Mountains begin here in Santa Fe."

To treat localized dry spots, Campbell uses eight ounces of wetting agent per thousand square feet every two weeks. No matter how uniform a green is, there will be inconsistencies and localized dry spots, which is compounded with salts, he says.

Campbell says he has tried every wetting agent on the market and started using them in Philadelphia where it was hot and humid with an entirely different set of weather, soil and agronomic conditions.

"Surfside is the best wetting agent I've used," he says. "I use it exclusively."

Campbell uses wetting agents throughout the year and is always looking for a deal. He buys the 55-gallon drums even though the shipping is expensive.

"I spend a minimum of $12,000 on wetting agents a year," he says. "There has been no year where I spent less than $10,000 on wetting agents. The drier the year, sometimes as little as four inches of rainfall a year, the more I need to supplement my irrigation."

Campbell acknowledges there's an uncertainty about wetting agents in the industry, but he says a superintendent has to know his soils, drainage, irrigation and turf problem areas.

"You need to spend the time to experiment," he says. "One size doesn't fit all. What I used in Philly is different than what I use out here. It's no different than any other business. Attention to detail is the key, and versatility is key to success. You need to make adjustments. You don't just dump a wetting agent in the tank and go."

When Campbell sees a water-related problem, he applies a wetting agent, which alleviates the problem but doesn't eliminate it.

"It will be different for me every year," he says. "It's frustrating, but just because it worked last year, doesn't mean it will work exactly the same way this year. It's an ongoing thing."

Superintendents will always deal with localized dry spots and wetting-agent use, Campbell says.

"Every superintendent should have a wetting agent as part of his arsenal," he says. "They've been around a while, but they must be doing something for someone because they've last a long time. That's somewhat of a testimonial." **GCI**

BY JOHN WALSH

More than one use

Wetting agents contest localized dry spot and wet turf while reducing labor for a superintendent in Indiana

Golf course superintendents have long turned to wetting agents to combat localized dry spots. John Parker, golf course superintendent at the French Lick (Ind.) Springs Resort, does. But he also uses wetting agents to keep certain areas of the course dry and reduce labor.

There are a lot of improvements being made to the French Lick Springs Resort as part of an overall $382-million renovation. The resort features the 18-hole Donald Ross Course built in 1917 that was newly renovated by a team led by architect Lee Schmidt.

"We've been called one of the most originally kept Ross designs in the country," Parker says. "Throughout the years, we've had only one hole changed to build a lake. There are 16 holes that are completely original."

Currently, the Tom Bendelow Course, which was known as the Valley Links and used to be an 18-hole course, is being renovated and converted to a nine-hole course scheduled to open this fall. A casino was built where the old driving range used to be, and a new one is being built nearby. The casino opened in November 2006 along with the newly renovated French Lick Springs Hotel. A brand new 18-hole Pete Dye course is expected to open in 2008 atop the second highest point in Indiana.

Resort improvements include an increased golf course maintenance budget, from $450,000 to about $800,000. Parker says owner Bill Cook wants to restore the historical grandeur of the area (French Lick was home of the largest standing dome, the West Baden Springs Hotel, before the Astrodome was erected, Parker says), improve the quality of the golf courses and meet the higher guest expectations that will be likely once the renovations are complete.

"We've improved the green complexes using Best Sand, and we're using more fertilizer by spraying iron on the fairways," Parker says.

The turfgrass is Penncross bentgrass on the native soil greens and approaches, Quickstand Bermudagrass on the tees and fairways, and turf-type tall fescue in the rough.

"We're in the transition zone, although it's been a rough year for the Bermudagrass because of the cold spring," he says. "We had been using a systemic fungicide with a wetting agent, but now with the Bermudagrass, I don't need the fungicides, so I spray just the wetting agents. On the greens, it's still a mix."

Parker spends about $3,000 a year on wetting agents and uses them to help cure localized dry spot on greens and fairways. He

Superintendent John Parker spends about $3,000 on wetting agents annually. Photo: French Lick Springs Resort

also used wetting agents to help establish sod for greens expansions. Some greens were rectangular and eventually became rounded. Parker used wetting agents to establish the grass in the areas that made the greens rectangular again.

Parker says that when he started at French Lick 11 years ago there was a lot of localized dry spot, but now there has been less because he has been using wetting agents. Using wetting agents also eliminates a lot of labor, such as dragging hoses to certain areas on the courses, even though Parker's crew still drags hoses sometimes.

Because the water Parker uses to irrigate the golf courses has high sodium content and is of poor quality, he can't flush the soils well. So, he uses wetting agents and when it rains, and the combination of rain water and wetting agents helps flush the soils properly.

Parker applies wetting agents starting in late May or early June then reapplies them every three or four weeks on the greens and fairways through the first part of September.

"We have hills and valleys here, and wetting agents help on the high peaks," he says. "Wetting agents also help percolate the water in the valleys to keep them drier."

Parker purchases wetting agents as needed, usually monthly.

"I can't buy a year's supply, but with the new budget, I will buy the 50-gallon barrels to save money."

Parker has tried different brands the past two years but is now stuck on one – Revolution from Aquatrols.

"Ten years ago, if you applied a wetting agent and you didn't water it in right away, it would burn the grass, so I've been cautious," he says. "Now the products are better than 10 years ago, and you can wait a bit before applying water."

Parker applies 6 ounces of Revolution per 1,000 square feet every three to four weeks on the greens. On fairways, he uses Primer Select by Aquatrols. He says the difference between the two is cost.

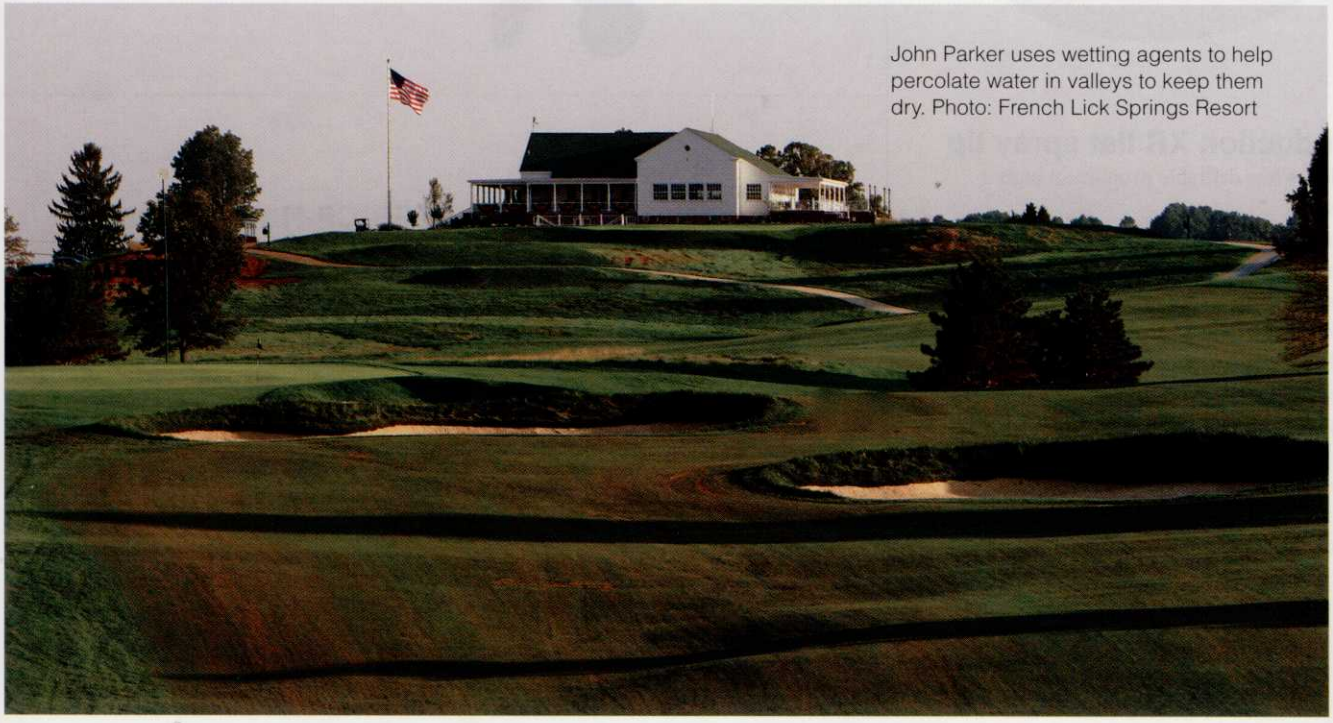
"I've used Cascade – it's a good product – and a lot of wetting agents," he says. "But Aquatrols conducts research and is committed to wetting agents, which eases my mind."

Parker spot treats certain areas with wetting agents and makes blanket applications on the greens and fairways throughout the summer. He would like to inject Dispatch into the new, three-row irrigation system (he used to have a two-row system) to reduce labor but hasn't done so yet.

"I'm not using it now but will in a few months after I use the rest of the Revolution," he says. "It's always good to have wetting agents on hand to treat problematic areas."

Parker is convinced wetting agents help organic matter slide off the sand in the soil profile and allow water to collect between sand particles.

"The benefit of wetting agents is you don't have so much dew on the bentgrass, so you'll be less prone to dollar spot," he says. "If you choose not to mow and applied a wetting agent, you don't have dew, but rather a nice green complex because all the moisture goes down into the soil." **GCI**



John Parker uses wetting agents to help percolate water in valleys to keep them dry. Photo: French Lick Springs Resort