

# ALL WET

Brittany Schmigel

Correcting the problem of hydrophobic soils, superintendents utilize wetting agents to lower irrigation costs.

**W**hile their costs, products and application methods vary, many superintendents agree wetting agents greatly improve hydrophobic soil conditions. And it doesn't hurt that the agents help save water, either. They've become widely popular throughout the industry as supers realize their numerous benefits. GCI interviewed four superintendents who shared which products improve greens, cut costs and help the environment.

Brian Anderson, CGCS, Nema-colin Woodlands Resort in Farmington, Pa., realized he needed wetting agents during an extremely dry season. "No matter how much we would water, we couldn't get it through," he says. "One of my distributors had recommended trying them (wetting agents) and we noticed a difference immediately."

Anderson uses Aquatrols' Revolution (every 30 days on sand-based greens), Primer (every 30 days on

tee boxes and approaches) and injectable Dispatch (every irrigation cycle). "I always say they make water, wetter. That's kind of the way that I see it," says Anderson, who on an annual basis spends \$17,000 on wetting agents for 36 holes and two practice facilities.

Not only do the products improve the course, but the Dispatch cuts down on Anderson's work, too. "Our savings is man power, No. 1," he says. "You can set the

Wetting agents helps move water throughout the soil profile, so golfers can play quicker – even during wet periods.





timer on the pump and as you're watering, put it (Dispatch) out."

Dispatch has worked so well Anderson now utilizes it seven months out of the year. "A lot of people like to use it only during the summer months, but the benefits (when using throughout the year) are two-fold: It gets you through the dryer periods; and it gets you through the wetter periods," he says. "When you have a rainy season, a lot of guys don't like to turn the water on. But I think there's a lot of validity in utilizing Dispatch in April through October. Even if the turf might not be dry, we find that it allows us to open up the cart traffic quicker after a rain event, than if we weren't using it." He says wetting agents helps move water throughout the profile and evacuates it, so golfers can play quicker – even during wet periods.

While others may use wetting agents only during certain seasons, Anderson's unique approach isn't incorrect. Andy Moore, director of marketing and business development for Aquatrols, says water repellency is becoming recognized as a regular, every day problem and is no longer considered an "it shows up now and then" exception.

"People are realizing varying levels of water repellency exist, that's the norm of life. So it makes sense to manage it on an ongoing basis," he says. "Whether it's wall-to-wall or spot treatments, more and more superintendents are using them for water conservation and management. They can see the results and see that they're also water management tools as well." There's often a 30 to 50 percent reduction in irrigation when using wetting agents, especially

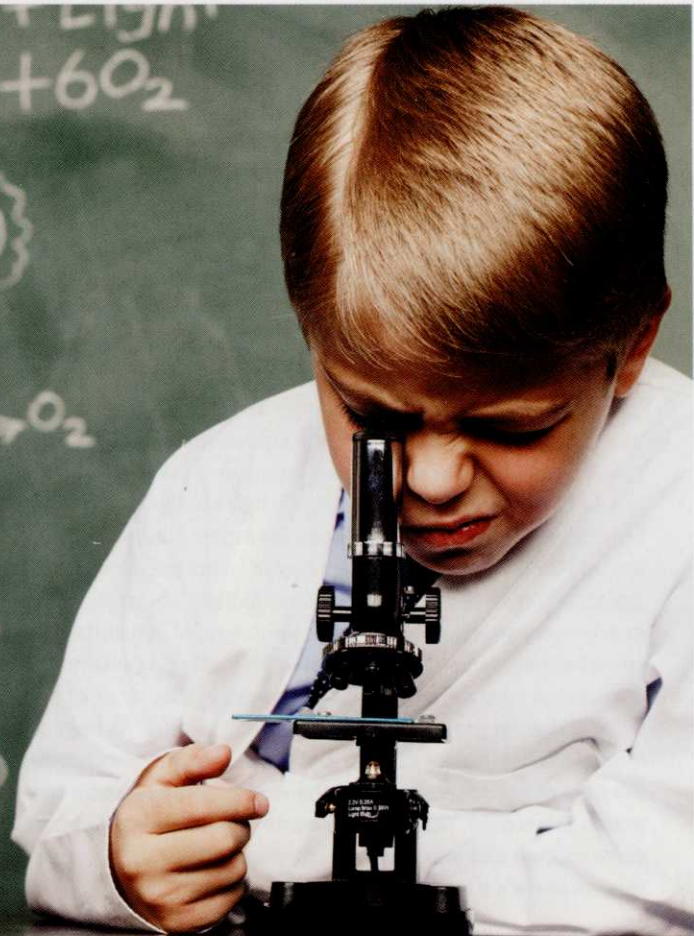


Which turf sample had a wetting agent? Here's a hint, it's not the one on the left.

injection treatments. "It translates back to the cost of water and energy, it adds up," Moore says.

Wetting agents allow Tony Grasso, superintendent at Metropolis Country Club, White Plains, N.Y., to water less. "I save water by not having to syringe during the day," he says. "When I can turn the sprinkler on for seven minutes instead of 10 minutes, that's a 30 percent savings."

Putting on  
a white coat  
doesn't really  
make you an  
**EXPERT.**





## SMART IRRIGATION

Grasso treats his fairways, greens and tees from May through October with an injection and treats localized dry spots with pellets. "It's the best way to go," he says. "It's expensive, yes, but in the long run it's not any more expensive than anything else we do." While he declined to specify a brand, Grasso spends \$3,000 per year on wetting agents.

"A good golfer doesn't want to play on a wet turf and there's a fine line between wet turf and healthy turf – so that's what we try to achieve. It's a great tool," says Grasso, who has been a superintendent for 30 years and has had considerable experience using wetting agents. "A lot of different ones have come and gone, but there are a lot of great products on the market. Some are more expensive than others, some work better than others. You got to find which one is best for you," he says. And it seems like he's found what works best for him. "I don't get any puddling or squishiness when I ride around in the morning – that's a plus for golfers," he says. "You want the water where



More superintendents are using wetting agents for water conservation and management.

the roots can use them, not on the top – and you're always trying to get a dry cut, so you're trying to get the water off the surface as best you can. We were also trying to get the insecticides down into the soil... The more we used them (wetting agents), the more uses we found for them."

Moore agrees. "When it comes to really treating the golf course wall-to-wall, the best way is through injection with the irrigation system – this is where fertigation comes into play," he says. "In that way, they're able to treat the entire golf course affordably and enhance water penetration and distribution, with virtually no labor. And that's where you see significant savings on water and energy."

Jim VanHerwynen, CGCS, South Hills Golf and Country Club in Fond du Lac, Wis., began utilizing John Deere's LescoFlo and Aquatrol's injectable Dispatch and Revolution when water would not penetrate his course's heavy clay soil. "We have native push-up greens and the rest of the property is clay soil, so it's either too wet or too dry, that's why we went to wetting agents to balance it out." VanHerwynen uses Revolution (once a month, from April through September) on greens, collars and approaches. He uses injectable Dispatch wall-to-wall (in the spring and fall) and LescoFlo (once a year, in June) on fairways, intermediate roughs, tees, green mounds and driving range tees.

"When the soil got dry, you almost had to saturate it before you could

**S**oil becomes hydrophobic because of a variety of naturally occurring processes, says Andy Moore, director of marketing and business development for Aquatrols. Plants exude compounds out of their roots and microbes excrete waste products as they chew up organic matter in the soil. These substances, called organic acids, coat the soil with a waxy material. "These compounds can become very water-repellent and can cause these problems," he says. "You get this coating on soil particles that block where water would naturally attach, so that's specifically what the soil wetting agents are addressing. They come in and treat that coating and allow it (the soil) to become wettable." Moore, whose father began Aquatrols in 1955, says it wasn't until the mid-70's that turf managers began to embrace soil wetting agents. "It took time to get people to believe," he says, adding now nearly every superintendent uses some type of soil surfactant. And as superintendents use them, they realize wetting agents not only improve the soil but reap other benefits and savings, too. "A lot of people are using a regular program on their greens," he says. "A huge area of money savings, water savings and environmental stewardship is through the idea of injection – treating the vast majority of water that gets put on the course. That's a big step toward reducing water and energy consumption and market research shows that only 30 percent are doing this, so there's a lot of room for improvement."



get any moisture to move down. We always struggled to maintain a uniform moisture level," says VanHerwynen, who spends about \$10,000 per year on wetting agents. "It was not uncommon in July or August to have two guys out, about six hours every day on a regular basis, hand watering tees, collars and greens. I don't know the percentages, but I know we definitely water less. It's extremely rare when we hand water our greens or collars now."

VanHerwynen has developed his own tricks to improve the use of his products. "I always spray LescoFlo in the rain. I know it sounds absurd. It's not the most pleasant experience, but it works the best if you spray it while it's raining and if you can get 3/10 inch or more of rain afterward. That's ideal, because then it doesn't have a chance to stick to the leaf blades at all, it gets through

the thatch layer and into the soil. We've seen the best results by doing it that way."

VanHerwynen has his own methods, too. "When we fill our irrigation system in the spring, we inject Dispatch while we're filling and so when we test our irrigation system – that's our first application of Dispatch," he says. "It appeared that when we started doing it (the Dispatch application) right away in the spring, it really helped. Our heavy clay doesn't drain well and we struggle with getting the equipment on the course without leaving tracks and a mess, so it improved that. In the fall, we blow out the irrigation system to winterize it and we put down two applications of Dispatch, back-to-back. It prevents standing water in the winter, before the ground is frozen."

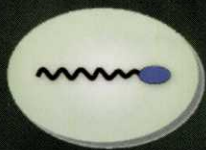
Brett Fleck, assistant superintendent at French Lick Resort, in

French Lick, Ind., was also having problems with heavy clay soils, so he began using Aquatrols' Revolution (on greens and back grass) and injectable Dispatch (wall-to-wall).

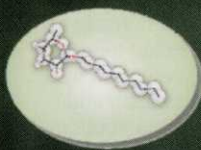
"Revolution we do monthly and Dispatch we use on a 12-oz.-per-acre rate, weekly," says Fleck, who uses wetting agents because of his course's clay soil. "We have a lot of hills and dollies. It helps water stay on the hill a lot better and the valleys don't stay as wet, so that helps. The Dispatch helps move the water through the soil better and we have some 90-year-old soil-based greens, so the Revolution maintains them and keeps the water where the course needs it." Fleck spends about \$8,000 a year on wetting agents and says his course has seen an improvement. **SI**

*Brittany Schmigel is a contributing editor at GCI.*

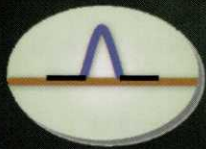
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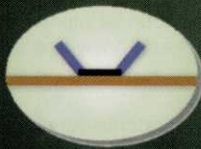
Polyoxyethylene (POE)



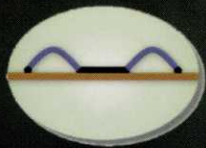
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