

Golfdom

SOLUTIONS, IDEAS & OPINIONS

A Healthy Injection for the Greens — and the Economic Good of the Course

Machine uses high-speed, water-based system that's changing the way superintendents handle routine aeration

BY SHANE SHARP

PHOTOS COURTESY OF DRYJECT 21ST CENTURY AERATION



The machine uses a patented venturi system to pull up to 8 cubic feet of topdressing material.

tion system that's changing the way superintendents handle routine aeration.

A Zamboni-like machine with a row of 10 high-pressure injectors blasts aeration holes about the size of a little finger through the rootzone. Both the spacing (3 inches to 10 inches) and the depth (up to 10 inches) are adjustable. The machine uses a patented venturi system to pull up to 8 cubic feet of topdressing material (or soil amendment) per 1,000 square feet without disrupting the surface.

"It's an excellent new technology to incorporate sand into the upper rootzone," says Patrick O'Brien, Southeast regional director of the USGA's Green Section. "The sand incorporated can be counted in the overall total of topdressing applied to the greens annually for the purpose of the organic matter dilution program. The technology can incorporate large amounts of dry sand through the cones of the machine with high-pressure water."

The Challenge

As superintendents will attest, aerating greens always poses challenges, from communicating to golfers what's going on to having to shut down the course to complete the project.

The Solution

Imagine a machine with a row of seven high-pressure injectors that blast aeration holes and then injects topdressing. And the machine does it fast and leaves a smooth putting surface.

For superintendents, the sales pitch is becoming increasingly difficult to resist. Imagine a machine that injects 500 to 700 pounds of topdressing per 1,000 square feet of turf — up to 250 percent more than a traditional application. Now imagine three of these machines knocking out all 18 greens in one day. Lost revenue? What lost revenue? All 18 putting surfaces will roll as smooth as the hood of a newly waxed car in just under an hour. Oh, and if the upper rootzones need some soil amendments or nutrients to go along with the sand, no problem. Consider it done.

The apparatus in this proposal comes courtesy of DryJect 21st Century Aeration. DryJect utilizes a high-speed, water-based injec-

Striking gold

The DryJect machine and its sand injection technology were not designed by a couple of



One USGA agronomist says DryJect is an excellent technology to incorporate sand into the upper rootzone. Bob Graunke (right), certified superintendent of Tidewater Golf Club, uses gypsum in the machine to help soften the soil.

rocket scientists with an inexplicable penchant for golf course maintenance.

Rather, DryJect as it exists today is a product of the blood, sweat and tears of a mining engineer from Sweden and his American partner. In 2000 Peter van Drumpt and Chris des Garennes purchased the license, patent and parts for what would become DryJect from Land Pride, a division of Great Plains Manufacturing. The partners then set out to put theory into practice by fine-tweaking the design to make it more durable and efficient.

"They had the machine and technology, they just couldn't get it to work," van Drumpt says. "Whenever you are dealing with a machine that uses water, it is tricky business. We redesigned it, and we've made it work."

Not only have they made the machine work, they have developed a successful business model that is capturing significant market share along the East Coast. Aware that it would be cost-prohibitive for courses to purchase the maintenance intensive DryJect machines, van Drumpt and des Garennes grow the business by selling franchises. Twenty-four DryJect franchises are sprinkled along the East Coast, the majority in Pennsylvania, New Jersey and Ohio.

"We've also penetrated the Carolinas, and we are starting to go after the Southern California market," van Drumpt says.



Take your best shot

Bob Graunke wasn't hit over the head with the DryJect sales pitch. He did, however, end up having a fateful conversation with a DryJect franchiser at a conference in Orlando, Fla., about using the machine for injecting greens with something other than sand.

"I wanted to know if you could use gypsum in the machines to soften the soil and move water through quickly," says Graunke, certified superintendent at Tidewater Golf Club in Cherry Grove Beach, S.C. "Because of our proximity to the [Atlantic] ocean, that's a big issue for us."

Big enough that Tidewater is on its third set of greens in 15 years. After two unsuccessful attempts at growing bentgrass, Tidewater officials opted for TifEagle bermuda two years ago. The hardy ultradwarf has been a success so far, says Graunke, but a chemical application issue shortly after the installation left him and his staff scrambling for a remedy.

"We were applying a lot of charcoal to combat it so we started to get charcoal buildup," Graunke says.

After the DryJect representative confirmed he could use gypsum as a soil amendment in the machine, Graunke contracted with a South Carolina-based franchise for a test run. After a few weeks, the buildup was virtually eradicated. But Graunke also noticed the late-spring transition from *Poa trivialis* to bermudagrass was smooth.

"In 3 acres of green surface we put down 23 to 25 tons of topdressing," Graunke says. "We are able to run golfers through the course as we are doing it. The beauty of the hydrojet is that once you inject the material you are able to blow off the excess material, water the greens, roll them, and they are ready to putt. We even do it during peak season because we don't have to worry about forfeiting the revenue."

Not forfeiting revenue was also a major concern for Todd Gribbling, golf course manager at the Timers at Troy in Elkridge Md. The greens on the Alt Clark/Ken Killian-designed course had started to develop sig-

Real-Life Solutions

nificant amounts of black layer three years ago, despite being only 8 years old at the time. Regular aerification wasn't eliminating the problem, so Gribling contacted a local DryJect franchiser about testing the machine on the chipping green.

"We were able to get down 10 inches into the green," Gribling says. "With regular aerification we were getting down 6 inches, and we just couldn't get to the black layer. We decided to try it on all 18 greens. Two hours after we did it, the greens were playable. We were able to get down about 9.5 inches on all the greens."

By having playable greens just two hours after the DryJect treatment, Gribling says the course saved around \$10,000. And while the black layer has almost been eradicated, Gribling says he will continue to use the DryJect treatment even after it's gone.

"It really firms up our greens because we get the amount of material in there we need, and it is packed with water pressure," he says. "It is good preventative maintenance."

Continue aerification

Both Graunke and Gribling agree that DryJect is not a replacement for routine aerification. Rather, the machine can be used to strengthen the green, apply soil amendments and, in Tidewater's case, ease the transition between cool-season and warm-season grasses. O'Brien believes this is a prudent approach, and he cautions superintendents about looking at DryJect as a complete aerification solution.

"Since it does not remove any organic matter from the rootzone, it is not a substitute for aeration," he says. "It is technology to incorporate sand into the upper rootzone."

"I believe the DryJect technology is more of a topdressing practice and not truly an aeration of the greens," he continues. "The hole made by the sand blasting into the rootzone does provide added air and water movement where it occurs, but it is the sand added into the upper rootzone that dilutes the organic matter that is the major benefit." ■

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What Our Customers Say...

Post job questionnaires show that 98% of our customers intend to contract with DryJect at least once for the following season.

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Scott A. Witte, CGCS
Cantigny Golf & Tennis

"DryJect sand injection has proven to be a very useful tool for helping us maintain ideal putting conditions. It's something we will certainly continue as part of our ongoing maintenance program."

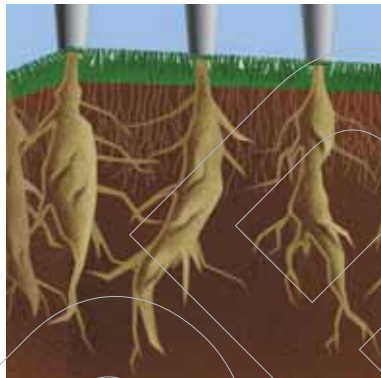
Paul B. Latshaw
Muirfield Village Golf Club

"As far as appearance, you could see that we had aerated but due to the limited ball roll disruption there were no complaints from the customers. In return, we did not lower our rates like we normally do this time of year giving us an additional \$6,000.00 over a two week period which paid for the service itself."

Todd Gribling, Golf Course Manager
Kemper Sports Mgmt / TheTimbers at Tray

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DryJect does two unique functions at once. First, as an aerator. Most aeration equipment punches, drills or slits; some pull plugs. Only DryJect aerates three dimensionally-side to side, front to back and even connects hole to hole. There's no glazing of hole walls, broken tines on buried rocks, changing tines or depth concerns of cracking drainage or other buried lines. It's a revolutionary concept using powered water - a patented Venturi process - to open the soil for air, water and amendments in high volume without disturbing the surface.

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