

Lemons cools off hot spots — for everyone

By MARK LESLIE

Hand watering — the bane of a superintendent's existence — is a thing of the past at some golf facilities — courses that have bought the Wetting Fork.

"If used primarily for 'hot spots' on greens, I can look at cutting my [treatment] time probably four times over," said Brian Holland, superintendent at Stonehenge Golf Club in Fairfield Glade, Tenn.

Holland is one of the first to buy the new invention from fellow superintendent Jerry Lemons of Old Hickory Country Club in Hermitage, Tenn.

The Wetting Fork, with six-inch-long tines mounted on an 18-square-inch platform, connects to ordinary water hoses. The tines are pressed into the earth and, under 20 to 400 pounds per square inch of pressure, ejects water that saturates an area in 10 seconds.

"I normally would use two people hand-watering in the summer months about every day for four to six hours, depending on the temperatures," Lemon said. "Now, one man spends about three to four hours every other day touching up the spots.

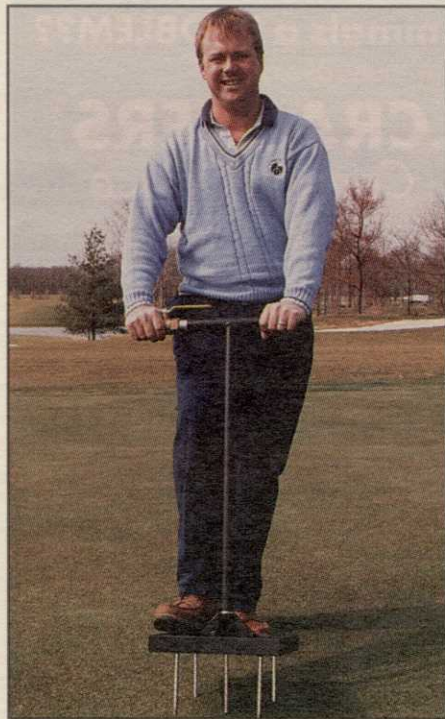
"Before, we were spending two hours for one little spot and still not wetting it. These hydrophobic areas do not accept water. But if it's 90 degrees out there, you've got to get it wet."

Lemons discovered the near-universal problem with "hot spots," or "dry spots" — small droughty patches of turfgrass — before his career actually began.

As a student at Murray State University in Murray, Ky., he designed and built a turfgrass research area and worked with golf course designers Jack Kidwell and Dr. Michael Hurdzan on the university course. His curiosity was peaked to find a solution to treating dry spots.

A friend, Roger Schmitt, had developed a bowl to force water into dry spots. Lemons found it "somewhat effective, but it had some limiting factors. I was still thinking about my own solution."

He moved from Princeton (Ky.) Country



Lemons with his Wetting Fork.

Club — where he helped with construction — to Old Hickory in December 1985.

Like elsewhere, he found greens suffering from dry spots. To solve the problem, he began with the documentation by Dr. Keith Karnock of the University of Georgia that the spots are caused by micro-organisms secreting a waxy material that adheres to the soil particles. Once the area gets slightly dry, the particles actually repel water.

"When an aeration hole is made in a green, the water runs through the soil and does not wet these dry spots," Lemons said. "I began to realize that the only way to saturate those areas would be to force the water in. The idea of flooding the dry spot was not new. Superintendents have hand-watered these spots on the surface to get the underground spots wet, using pitch forks, aeration tines and other water-injecting aerifiers.

"But, again, either the water would run off the surface before going into the soil or

it would run through the soil, leaving the soil particles still dry. This results in the turfgrass suffering from drought and can cause death to the turf."

Shunning thoughts of the expense and redtape involved in inventing and patenting a piece of equipment, Lemons made the prototype for the Wetting Fork. The creature of steel and galvanized pipe weighed 30 pounds, was difficult to handle and its tines broke easily.

That was the bad news. The good news was that the Wetting Fork put enough water to flood the subsurface area, not just punch a pinhole in the surface.

Today's version weighs 11 pounds. It is made of stainless steel and heavy-gauge aluminum. Its tines won't rust, break or bend. A 400 PSI ball valve controls the amount of water that can be injected into the spots. And a nylon adapter is included so the superintendent can use either a 3/4- or one-inch hose.

The six-inch tines saturate the ground to 12 inches deep. The water pressure also horizontally fractures the subsurface, Lemons said. "If you have a compacted area, it will be very helpful because compaction usually happens in the top three inches."

Holland said he intends to use his Wetting Fork on his fairways because of their heavy sloping.

"The upper areas of a slope will get dry," he said. "If we water it enough to get it wet enough, the bottom part gets swampy. That's the area I envision using it [the fork] the most."

Lemons said use of a pellet wetting agent applicator is also effective in keeping areas wet.

"We can finally get these wetting agents down into the problem area where they are needed, instead of on the surface where leaf tip burn can occur," he said.

Some superintendents are injecting fertilizer and insecticides with the Fork.

Besides the Wetting Fork's speed and quick payback, Holland viewed his investment as one of aesthetics — "keeping your course looking better."

Inventor looks toward Asia

HERMITAGE, Tenn. — Just last year Jerry Lemons formed The Thinking Superintendents Co., a Division of Golf Links Inc., to handle manufacture and sales of his inventions. Now he is negotiating with Asian representatives to expand his horizons.

"Hopefully, by mid-summer we will have the details worked out," Lemons said.

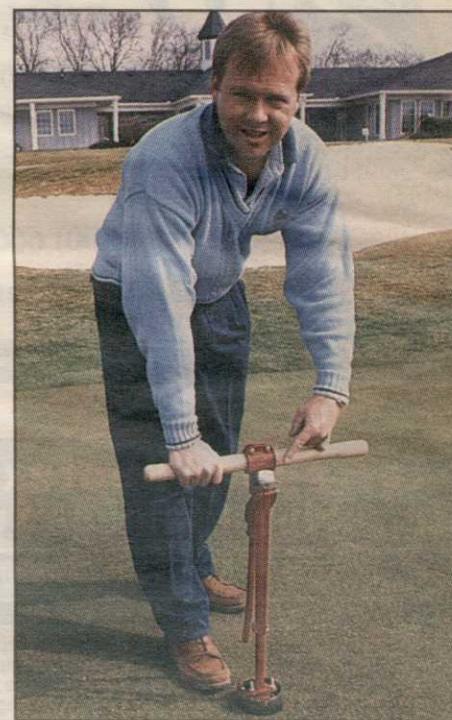
The Fork sells for \$349 but shipping costs to the Pacific Rim were too high, Lemons said. He cited the \$112 fee to send one unit from Tennessee to Taiwan.

"I've sold some units in Canada and have had a lot of interest," he said. "But when you start a small company like this, you have to grow small."

He contracted a Nashville metal fabrication firm to assemble an initial 1,200 Wetting Forks.

Lemons said more than 100 Wetting Forks are "out in the field," and sales were brisk at his booth at February's International Golf Course Conference and Show in Anaheim, Calif.

The Thinking Superintendents Co. is located at 101 Oak Hollow, Hermitage, Tenn. 37076; telephone 615-883-8153.



Lemons demonstrates his cup cutter.

Conquering crooked cups

The phrase "Get It Straight" means more to golf course superintendents than the average person. Its more significant meaning spurred Jerry Lemons to devise his second invention.

"How many times have you looked down your course and noticed a flag pole leaning?" asked Jerry Lemons. "Almost all superintendents are faced with making sure cups are perfectly vertical, perfectly straight. One trip by a greens chairman to your office can start the thinking process."

And that's what happened, leading Lemons to find a solution to crooked flag poles.

The result is "Cut It Straight," a circular level that can be mounted on any cup cutter.

"When the first prototype was built, the staff found cutting straight cups to be one of the easiest jobs on the course," Lemons said.

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