Micro aerification proponents are battling a reactive mindset among superintendents. But they hope to see a shift once the industry understands the benefits.

Weird weather this year has been a double-edged sword when it comes to micro aerification.
Some might say it's human nature to be reactive rather than proactive. But a golf course superintendent being that way when it comes to slitting and venting greens is asking for trouble, says Michael Hileman, field and technical specialist at JRM Inc. Turf Technology.

"The solution to needle tining and non-disruptive aeration is to be proactive with it," says Hileman. "The guys we see have success open those greens up with core aeration in the spring and then repeat that in three-week intervals once the greens heal up."

The reason many superintendents tend to be reactive with micro aeration, says Hileman, is because of the fear of losing business due to unsightly greens.

"Guys are hesitant to needle tine greens more because they're trying to keep golfers in the door," he says. "Word of mouth is that they have great greens, so they're worried that the little holes on the surface will destroy their reputation."

The main focus, Hileman says, tends to be how the turfgrass looks on the outside, but the fact is that the only way to achieve a pleasing aesthetic look is through healthy roots.

"Roots grow because they're allowed to grow somewhere," says Hileman. "You can put nutrients in them on whatever program you follow, but they have to have somewhere to grow. So the more you stimulate roots early in the season in good growing weather, when the weather heats up, you'll have more underneath to protect yourself."

"There's a growth hormone in roots, and you want to get that hormone stimulated. One way to do that is to split the root, which is the same thing as pruning a red bud. The more and more you can work them, the more branching you'll have."

With the new technology out there, however, superintendents should fear not about pockmarking their pretty greens. There are machines now that allow superintendents to tighten up spacing from tine to tine, which allows them to put more holes per square foot.
Itra dwarf turf grasses have been taking over bentgrass greens in the south for a variety of reasons, but one thing superintendents have to watch for is thatch build-up, which can be aggressive in these turf grasses. That’s why aeration is so important.

With the extended growing season of eight to 10 months in Central/South Florida, organic accumulation is a big concern, says John Foy, director of the USGA’s Florida Region. Therefore, core aeration is a big part of keeping that accumulation at a manageable level.

“The standard program that the vast majority of clubs in our region will do is three core aerations during summer,” says Foy. “We put it in terms of the total amount of surface area impacted by the aeration program. Based on what I’ve seen, the coring program needs to impact 20 to 25 percent of the total surface area through summer. So, depending on tine size and holes per square foot, you’re looking at three corings at least.”

Because superintendents in Central/South Florida are doing enough coring during the summer, a lot of them don’t do venting. But Foy recommends it.

“We absolutely encourage and push to get people to do venting during the fall, winter and spring when they’re not coring – that is, every two to four weeks,” says Foy. “Unlike coring, you can’t work any sand back in with venting, so you only get about three weeks of benefit from it.”

When ultra dwarf was first rolled out in the late 1990s, the recommendation was to minimize nitrogen due to its propensity to form thatch. But Bryan Unruh, professor and associate center director of the West Florida Research and Education Center at the University of Florida, says he believes that most people have determined that advice as faulty.

“[Ultra dwarf] is on the hungry side, so there’s a fine balance between feeding it and not allowing it to get out of control from a thatch build-up standpoint,” says Unruh.

One characteristic of ultra dwarf is that it tends to be very “stemmy,” says Unruh. The definition of thatch is an intermingled layer of living and non-living stem tissue, but with ultra dwarf, there is more living than non-living stem tissue.

“Consequently, that build-up of thatch tends to accelerate, so that’s why research has centered on not letting that thatch get ahead of you,” Unruh says.

When ultra dwarf first came out, Unruh says there was a strong recommendation to vertidrain it, but he believes very few superintendents are doing that now due to the aggressiveness of the machine.

“You want to prevent thatch accumulation from the get-go as opposed to trying to remediate the problem once it’s there,” he says.

As far as aerifying ultra dwarf, the practices are the same for any other kind of turf. Unruh says in Florida that amounts to four times per year, which is no different than the old tifdwarf. The only difference, he says, has been to increase the surface area that’s impacted by punching more holes per unit area.

They can then aerify every three to four weeks and not worry about affecting ball roll.

Hileman is seeing this “proactive not reactive” philosophy starting to catch on with superintendents in the transition zone in the south, plus with anyone in the north who has bentgrass greens. He credits the big bentgrass loss a few years ago as one reason why guys are starting to get it.

“We go back to the same logic: I put a bag on your head, you won’t be able to breathe. With turfgrass, it’s the same concept,” says Hileman. “It’s a living, breathing life form down there that needs air. People are starting to see that if they get out there and disrupt [the roots] every three to four weeks, they’ll be able to get through the heat and survive come summer.”

Hileman feels the weird weather this year has been a double-edged sword when it comes to micro aerification. On the one hand, good weather promotes aeration. On the other, some superintendents think that if they get good weather in the spring and the greens look great and the nighttime temperatures are down, they can skip the aeration process.

“I go back to being proactive,” says Hileman. “It is bound to heat up in summer, and if you have better growing weather for longer periods of time, that’s more of a reason to take advantage of and go after those hormones active in the plant with quarter-inch needle tines and bayonet tines and cross tines that won’t disrupt the roll of the ball.”

If how many times he aerates is any indication, Joe Wachter seems like he understands the importance of this cultivation practice. Although the superintendent of Glen Echo Country Club in St. Louis, Mo., doesn’t have a machine that will do any slicing or slitting, he employs a combination of hydrojetting and vertidraining with needle
Supers are trying to keep golfers in the door. Word of mouth is that they have great greens, so they're worried the little holes on the surface will destroy their reputation.

Times five to six times a year. As a private course, though, he enjoys more flexibility than a daily fee course. Still, he and his crews try to aerate early in the week so that, by the weekend, the golfers don't even see the holes.

"If the holes do stay open; we explain what's going on to the members via our blog or an e-mail blast," says Wachter. "We have 80- to 100-year-old greens with no drainage, so if it's something we feel we need to do to help save the greens and keep them as healthy as possible, they're all for it."

If Wachter can't accomplish the task in one day, he tries to finish at least before the morning play comes around on Tuesday. However, he normally doesn't have a problem - with three hydrojet machines, his crews were recently able to cover 120,000 square feet and finish at 10 a.m. after starting at 5:30 a.m. They'll usually roll behind the machines to smooth everything down, then mow the next day. With the vertidrain unit, he has to be more careful due to it being slightly heavier.

"I generally won't mow till the second day after vertidraining because, in August, you don't want to scalp [the greens] after opening them up," says Wachter. "If the root structure isn't really strong, we'll give them an extra day of rest and members won't know any different."

Wachter generally opens up the greens every three to four weeks, stretching it further depending on if they're taking water or not.

He and his crews recently hydrojetted the greens on a 105-degree day with 15 percent humidity, and they took advantage of it and poured water on them with hoses because the greens were taking it. And, with the member-guest tournament three weeks away, the timing was perfect.

Two weeks after the tournament, Wachter will vertidrain because he can get 1 ½ to 2-inch spacing, but if the greens are too soft he'll favor hydrojetting even though it will mean eight to 10 hours of labor for his crew.

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