

CHANGE IT UP

SUPERINTENDENTS TWEAK THEIR TURFGRASS
MANAGEMENT PROGRAMS TO IMPROVE CONDITIONS



BY T. R. MASSEY

On the surface, golf courses are colorful palettes of greens and browns with bright spots of richer hues mixed in as accents. Behind the scenes, however, golf course superintendents constantly must strive to strike a balance between maintenance practices and the stress of keeping a huge tract of land in proper bloom.

The art and science of golf course maintenance is evolving constantly, from increased aeration to improved irrigation techniques to foliar feeding. Accomplished superintendents must stay current with trends not only in their regions of the country, but in the industry as a whole. Often, this requires them to change maintenance practices that have been going on for years.

POKING HOLES IN TURF

Dan Petersen is in his second year as the golf course superintendent at the Warren Golf Club on Warren Air Force Base in Wyoming, and he's bringing successful practices he's learned during the past 30 years to the operation. Although he's an employee of the U.S. Air Force, he's not in the military.

Most recently, Petersen was the superintendent at Ramstein Air Base's golf course in Germany

from 1997 to 2006. There, he was able to let his greens grow a little longer and roll them.

"That let us get the speeds we were looking for," he says.

Based on that experience, he pushed for a roller since he started at Warren.

"I was proactive," he says. "I started to aerify and bring in rollers and demo them for members and management. We finally went out and bought a roller. The ones that hook to greensmowers don't appear to be that effective to me, so we bought a separate one that operates as a separate piece."

The rolling creates the proper surface on the green and helps cover the holes created by aerification, Petersen says. His rolling program will start this year with a frequency of three times a week.

"That causes dramatic changes," he says. "I'm looking for nine to 11 Stimpmeter speeds, eight to 10 for everyday use."

But the real secret to improving greens is an aerification program, Petersen says. Aerifying the push-up greens at Warren, which are with-

out drainage, has resulted in dramatic changes, and they've become more manageable.

"We started aerification once a month last year," he says. "We're verticutting and power raking, too. They hadn't aerified anything for three years. There was a 3.5-inch thatch layer. We've reduced it some, a quarter of an inch of thatch already, maybe a half-inch, but it's going to take a while to get rid of this."

Aerification is where it's at for Jay Wagner, CGCS, at Cherokee Ridge Country Club in Union Grove, Ala.

"It used to be standard to do it two or three times a year, and now we do it monthly, March to October, maybe more," Wagner says. "We make quarter-inch holes but don't pull plugs. Then, we run a roller behind it. You don't notice it."

This new practice is making the course at Cherokee Ridge look better, and new technology is helping, Wagner says.

"There are better aerifiers with better tines now," he says. "We have four new ones."

When Petersen began aerifying regularly at

Warren, there was a noticeable difference immediately, he says.

"The turf responded like I was giving it first aid," he says. "I'm using shatter tines and needle tines. I'm verticutting on a regular basis and topdressing. We do something once a month."

More aerifying instead of less can give turf the space it needs to breathe and grow. During the summer, aerifying opens up the turf and gets air into it.

"We have bentgrass, and it gets hot and humid and the grass doesn't like it," Wagner says. "We've also installed some fans around the greens to keep the air circulating."

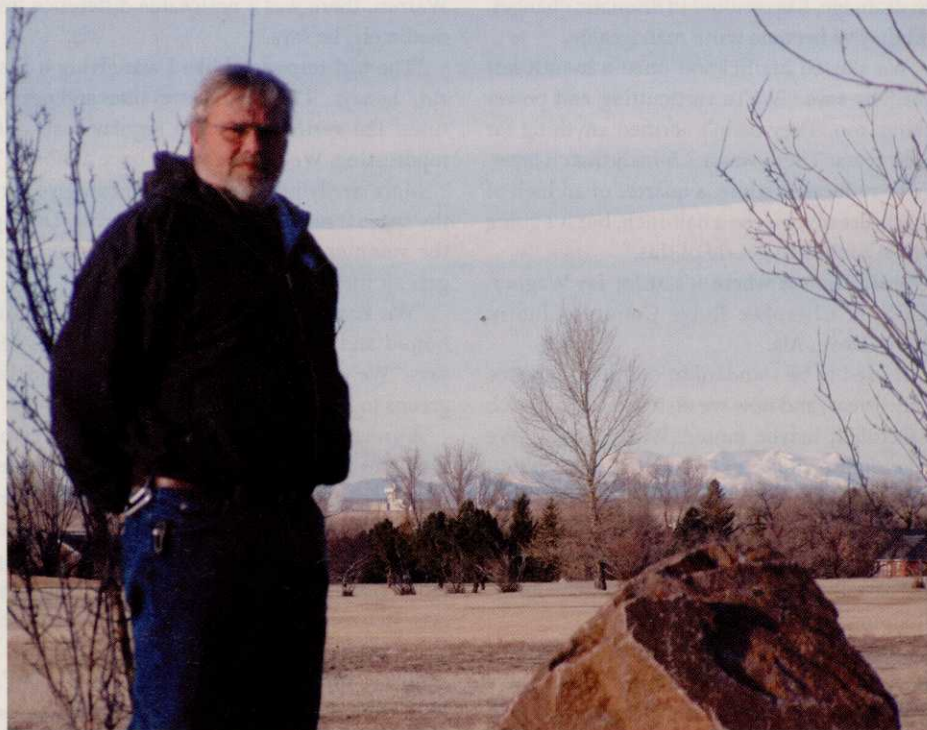
A greens and bunkers renovation was completed in 2002 at the private Cherokee Ridge, which built in 1992. Two years ago, Wagner began his aggressive aerification practice. In the spring and fall, he'll core. He's also topdressing more, timing that around the big aerifying projects. Between big projects, he uses needle tines to keep organic material from building up.

"It has improved turf quality," he says. "It's stabilized. It can get pretty sick looking at the

At Poppy Ridge Golf Course (opposite page), superintendent Todd Cook changed his fertility program and is using many more foliar applications with sulfates because it helps firm up surfaces and control silvery thread moss. Photo: Poppy Ridge Golf Course



At the Warren Golf Club, superintendent Dan Petersen is looking for Stimpmeter reading between eight and 10 for everyday use. Rolling the greens helps achieve this.



Dan Petersen increased the frequency he aerifies the push-up greens at Warren Golf Club to once a month to help reduce a 3.5-inch thatch layer.

end of the long summers that we tend to have. It was beneficial last summer when we had the hottest summer anyone could remember.”

Petersen wants to take his aerification projects a step further. A drill-and-fill machine is on order.

“The Air Force tries to renovate five courses a year,” he says. “If I use a drill-and-fill machine twice a year, I could save them a renovation. I’d change the soil composition. I used one at Ramstein and made dramatic changes. It really gets that sand down there.”

Petersen is considering a deep-tine aerification this year, too.

“I’d like to, but it’s harder to get the sand down in the hole,” he says. “The drill-and-fill is better. That’s the direction I’m going. I found a contractor to do the deep tining pretty cheap, and I’d like to do it twice a year, but you can’t do it in September because the holes won’t heal. There’s not a lot of healing time after that in this area of the country.”

PRECISE WATERING

In addition to punching holes in the turf, Petersen has to worry about his water supplies.

“It’s completely opposite of Ramstein,” he says. “In Germany, the course was like a cookie-

cutter in the middle of a forest. It rained and was cloudy all the time. We averaged seven inches of rain a week. Here, I don’t get seven inches a year. It’s been a learning experience. If my irrigation failed in Germany, Mom Nature watered. If it fails here, I’m out hand-watering.”

Brian Sullivan, CGCS, is in charge of maintaining the Bel-Air Country Club’s golf course in Los Angeles, another place where water is a premium. The easiest thing to do is install a good irrigation system, he says, noting that not everyone can afford a \$2.5 million system. But if one can, it’s the way to go.

“It’s been in the ground two years,” he says. “Our distribution uniformity is as good as you can get in the industry. We have enough heads that we can separate greens, tees, fairways and roughs.”

Sullivan has 3,000 irrigation heads at his disposal that allow him to target water to a specific area of the golf course and give it the proper amount of water. That way, one saves water, he says.

“If you’re not overirrigating, you eliminate a good deal of wet and dry situations,” he says. “So you have healthier plants without overirrigating.”

Superintendents working with irrigation systems that are 20 years or older might have distribution uniformity rated in the low 60s, Sullivan says.

“In a 10-minute irrigation cycle, you’d have to run water 14 minutes to be effective,” he says. “If I put in a component that’s 90 percent, that’s 1.1. That head could function with 30 percent less water. Now I’ve properly irrigated.”

Because there’s no off-season in Southern California, it was difficult for members to be without a golf course for four months.

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- DAN PETERSEN

“It’s never easy,” Sullivan says. “The amount of heads we have, near 3,000, it was four to six months, impactwise. But our membership is happy it’s installed.”

Most years, Sullivan doesn’t have to worry about a drought. But this year, starting last fall, he’s had only one inch of rain. Normally, one doesn’t have to irrigate a whole lot December through April.

“This year, we’re entirely dependent on the irrigation system, so it’s something that was really necessary,” he says.

At first, Sullivan thought the efficiency of his new system would save him money. It’s not uncommon for courses in the area to spend a quarter of a million dollars a year on water, he says.

“If you’re conserving 30 percent you’re saving money,” he says. “We are 15 to 20 percent more efficient. Of course, the price of water has gone up in the past two years, so I’m not sure exactly how much I’m saving.”

Water is a subset of a larger movement that Sullivan’s been aware of the past few years, and that’s environmentally sound maintenance practices.

“If you’re not on that bandwagon, you’re behind,” he says. “I’ve got it down to the recycling of cardboard. Our membership expects it.”

Every superintendent must embrace the fundamentals of water usage and other practices in integrated pest management, Sullivan says.

“Within the confines of that, we are stewards of the property,” he says. “You have to be environmentally conscious.”

FOLIAR FEEDING

Todd Cook, golf course superintendent of Poppy Ridge Golf Course in Livermore, Calif., says he’s

always mindful of the amount of chemicals he uses. During the past few years, he has changed his fertility programs.

“We use a lot more foliar applications with sulfates because it helped us firm up our surfaces and helped with silvery thread moss control,” he says. “We’re using programs developed by a consultant to get rid of moss and firm up putting surfaces at the same time.”

Before the past season, Cook mainly was using granular applications once a month but felt it wasn’t giving him the best bang for his buck.

“The foliar application actually is less than granular,” says Cook, a 12-year veteran who grew in Poppy Ridge. “The raw materials are less, and labor is probably a wash. Now, we’re putting on foliar applications every two weeks. Our greens have really improved. They’re a lot firmer and faster and more consistent.”

Opened in 1996 and designed by Rees Jones, Poppy Ridge is a sister course to Poppy Hills and owned by the Northern California Golf Association. It hosts some of the NCGA championships. But the one drawback to having firmer, faster greens is the loss of pin placements during competition.

“We have a couple of greens that are really undulating, so we’ve lost a couple of pin positions,” Cook says, noting the trade-off is worth it. “Only when the greens were brand new were the greens any better. This summer, we’re going to raise the mowing heights so we can keep the speed at a reasonable level. We have to work around the spots and not use them on our heaviest play days.” **GCI**

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