

Philosophy *and* Fertilization

**Superintendents put
a lot of thinking into
their fertility programs**

**BY ANTHONY PIOPPI,
CONTRIBUTING EDITOR**

THERE ARE MANY VARIABLES that determine the fertilization methods of a golf course superintendent — from soil type, to the demands of members and owners, to water quality.

Knowing the particular situation is key to feeding turf in a way that keeps the plants and players happy. To ensure their fertilizers are being utilized as best as they can, many superintendents are taking care to take care of their soil, as well.

Like Kevin Smith, for instance, whose task at Bryan Park Golf & Conference Center in Greensboro, N.C., is not easy. The certified superintendent oversees two 18-hole courses at the municipally owned facility and is also the head agronomist for the management company, Pinnacle Golf Properties,

PHOTO BY: ISTOCK INTERNATIONAL INC.; PHOTO COURTESY: PETE SERMINI (OPPOSITE)

which runs Bryan Park. Smith has a mishmash of greens on the two courses with which he must deal. The George Cobb-designed Players Course opened in 1971, and the Rees Jones-designed Champions Course opened in 1991. A portion of the Players Course was used for the Champions layout. In the late 1990s, the greens of the Champions course were regrassed with L-93. In 2005, the Players course greens underwent a major renovation as the turf was stripped away and straight sand was tilled into the profile that was then seeded with a mix of Penn A-1 and Penn A-4 bentgrass from Tee-2-Green.

“We subscribe to soil management, and turf feeding is a real close second,” Smith says, with the goal to produce “the most durable, healthy turf we can achieve.”

Greensboro, with its heat and humidity, is not the ideal area for turf other than bermudagrass.

“We’re in an intense bentgrass environment here,” Smith says.

On the Players Course, where the root zone on the young greens is 100 percent sand, Smith’s focus is to foster organic activity through such methods as tank mixing a molasses-based product to “promote healthy microbial activity.”

Confounding matters for Smith is the water at Bryan Park is pure (in his words), meaning it contains virtually no minerals, and he can end up stripping nutrients from the soil as a result during heavy irrigation. Because of that, Smith keeps a sharp eye on the potassium levels in his soil.

According to Smith, in his 20-plus years as a superintendent, one of the biggest changes he has seen is in the quality of foliar fertilizers.

“They have the ability to get into the plant in a very effective manner,” he says.

As for how he’s changed, according to Smith, he’s not as easy to jump at what’s new.



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– PETE SERMINI

“I’m less susceptible to the flavor of the month,” Smith says.

Fertilizing for fast greens

At Lazy Swan Golf and Country Club Village, a nine-hole public golf course designed by architect Barry Jordan that opened in 2008, Pete Sermini has tended to the turf since he arrived with about three months remaining in the grow-in process. His greens are a combination of A-1 and A-4 while the tees and fairways are T-1 creeping bentgrass from Jacklin Seed.

“It’s an extremely aggressive grass; the divots heal quickly,” Sermini says, adding that T-1 requires a lot of maintenance and aeration.

Sermini says he manages his greens for speed and has them Stimping more than 10 feet daily. To do that, he walk mows them daily and rolls them three times a week. He also has a defined fertilizer plan.

“Fifteen years ago, we’d put down 1 pound of nitrogen per year. In those days, if you wanted fast greens, you didn’t feed them,” says Sermini, who adds the program also led to problems with anthracnose and moss.

Now his fertilizer applications are more frequent and lighter.

Sermini also applies an organic blend of humic and amino acids as well as a kelp-based product to help build up organic levels in his all-sand greens.

On the fairways, Sermini uses about 3.5 pounds of nitrogen over the course of the season and a little iron as well. He also applies plant growth regulators. He ups his application to 5 pounds on tees.

“I really have the tees jumping; I want them healing,” Sermini says. “I do get surges in growth, but the growth regulators help.”

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What members want

At Wannamoisett Country Club in Rumford, R.I., superintendent Mark Daniels' fertilizer philosophy is driven by the desires of his members.

"They want green, and green is good," Daniels says of his membership. "We don't want any big flushes and we limit growth."

Wannamoisett is a 1915 Donald Ross design that's home to the Northeast Amateur and hosted the 1931 PGA Championship. The large greens have plenty of swells, dips, knobs and shelves that make putting very difficult, especially when they're kept as fast as Daniels is directed, which is 11 feet during the week and more than 12 feet on the weekend.

The turf varieties on the putting surfaces are many, including South German bentgrass. *Poa annua* makes up about 80 percent of turf. Daniels uses mostly a foliar application on the greens, switching to a granular when he dormant feeds. In the summer it's a weekly application in tiny amounts.

"We're trying to starve them as much as we can to keep up speeds, but we give them a touch of nitrogen to battle anthracnose," he says, noting the pathogen strikes almost yearly but in small areas.

When feeding fairways, it's mostly granular applications.

Wannamoisett underwent a renovation in 2008 by architect Ron Forse that features a new irrigation system, which includes a fertigation system Daniels is still learning to use.

Daniels says the experience he gained at other golf courses he worked plays a large role in the regime he uses to feed his turf in his first head job.

"I worked for a bunch of great supers, and I've taken bits and pieces from all of them and adjusted them to this piece of land," Daniels says.



It's about the soil

On the land of Stone Creek Golf Course in Oregon City, Ore., superintendent David Phipps manages a rare stand of turf for his area of the country. His fairways are a blend of four varieties of fescues — creeping red, chewings, hard and slender — along with perennial ryegrass. The 9-year-old greens are 90 percent bentgrass by Phipps' estimation, as he has been able to keep the *Poa annua* from invading. They were originally seeded with Penn Links but for the last five years Phipps has interseeded them with A-1 and A-4.

Phipps, like Sermini at Lazy Swan, makes sure his soil is best suited to sustain turfgrass using amino acids made from plant extracts. "This has enabled the soil to work for itself," Phipps says.

For greens, that means as little as less than one-tenth of a pound of nitrogen

“I’m not so big on the (rates). I’m putting down N-P-K, but it’s how I’m treating my soil.”

— DAVID PHIPPS

every two weeks — except in July and August, when he may shut off nitrogen applications while continuing to put down phosphorous and potassium. In the rough, which is the same turf blend as his fairways, Phipps applies between 1 pound and 1.5 pounds of nitrogen a year. On fairways, it's 2.5 pounds of 32-0-10 in two applications, usually in early June and September. Phipps says he's careful not to give the turf too much nitrogen or the ryegrass will dominate the fescue.



A minimal approach

Then there is Mark Clark, the certified superintendent at Troon Country Club in Scottsdale, Ariz., whose fertilization program is connected to his irrigation program. “We have bad water here, and everything revolves around that,” Clark says.

Because of the high levels of sodium in the reclaimed water, he says fertilization is fourth on his tier of cultural practices. First on the list is water, followed by mechanical ways to move the salt through the soil that include flushing and topdressing greens tees and fairways. He also aerates frequently.

“We aerify like crazy in the summer to get those channels open,” Clark adds.

Third on the list are amendments, such as applications of gypsum and wetting agents. Then comes fertility. Clark, who has been at Troon for 12 years, tries to minimize plant feeding.

“Fertilizer is a salt,” he says. “Why would I add to my salt problem?”

When Clark does put down nutrients, it’s a foliar product delivered with light, frequent applications. In the winter, Clark puts down more fertilizer to keep up the color on his annual ryegrass.

Other than that, Clark can only hope for rain to come and wash away his problems while keeping a sharp eye on his turf and knowing when precisely to feed it.

Final advice

Smith, whose two courses at Bryan Park are hosting the 2010 USGA Public Links, offers some simple advice: The key to correct feeding is to develop a plan that works for each location, he says.

“Find a program and stick with it,” he says. “Stick with the basics and don’t go off on some tangent.”

That doesn’t mean, however, once a plan is formulated, a superintendent can ease off it.

“You just can’t put it on cruise control,” Smith says. “You really have to pay attention to what’s going on.” ■

Pioppi is a contributing editor to Golfdom.



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