

Amino Acids Absolute

Products help superintendent solve effluent irrigation woes

BY DAVID JEWELL AND LARRY AYLWARD

Problem

After 22 years of irrigating with effluent water, the fairways at White Pines GC began to die from a tremendous buildup of sodium in the soil, which also had a high pH.

Solution

The use of amino acid products provides the turf with more energy to pull nutrients and water from the soil more effectively.

The news from the lab was unfortunate. White Pines GC superintendent Steve Partyka was told his Bensenville, Ill., golf course's soil analysis revealed the dirt was so poor that it wasn't fit for growing turf.

It was 1998, and Partyka knew something was wrong. After all, 75 percent of the turf on the fairways of the 36-hole municipal complex was dying. But Partyka didn't expect news this bad.

The lab's soil analysis revealed the course's salt index was a whopping 330 pounds per acre. An index of 50 pounds per acre is considered high. So it was obvious to Partyka why most of the fairways were dying.

But what wasn't obvious was the source of the problem. "I figured it had something to do with the effluent water we used for irrigation," Partyka says.

The problem

Before 1976, the fairways at White Pines weren't irrigated. The course only watered its tees and fairways with well water.

But in 1976, when Partyka was a part-time laborer at the course and his father, Ed, was superintendent, White Pines installed a new irrigation system for greens, tees and fairways with a watering capacity of 2,400 gallons per minute. (The previous system's capacity was 600 gallons per minute.) The course, however, didn't have enough well water to support the system. It had to use Bensenville's effluent water to sustain the new irrigation system.

Since 1976, the water irrigating the course has been a mixture of 80 percent effluent water and 20 percent well water. Partyka, who suc-

ceeded his father as superintendent of the course seven years ago and was his assistant 11 years before that, has monitored greens and tees for sodium buildup from the effluent water. He often treated the greens and tees with gypsum to leach the sodium out.

But Partyka never treated the fairways. After 22 years of effluent irrigation and little treatment, a major problem hit.

The summer of 1998 was warm and dry. The season's aridness had a terrible impact on White Pines' sodium-laden fairways. In late July and early August, the fairways began to die.

Partyka now knows it was because of the



Superintendent Steve Partyka heard about Nutramax Laboratories' products from several sources, including chatting online with superintendents.

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tremendous sodium buildup over the previous 22 years in combination with the dry summer. Consequently, the soil also had a high pH. Since there was no rain, there was no fresh water to knock back sodium counts. "So every time we watered, it was like spreading salt out there," Partyka says.

Partyka says he never figured the sodium count would climb so high on the fairways. He attributes that to not knowing the sodium count in the effluent water.

"The EPA doesn't regulate the sodium in effluent water," he says. "So the sodium count can be high one day and low the next. You don't know what you're getting from day to day."

Partyka, however, was not about to let the bad news get to him. He scoured the Internet for products to help grow turf in salt-saturated soil. His rootless turf needed help — fast.

The solution

Initially, the obvious things to do were aerify the fairways and seed the bad areas. Then Partyka and his crew spread gypsum at a rate of 25 pounds per 1,000 square feet. But Partyka knew the fairways needed something else.

Partyka learned about Edgewood, Md.-based Nutramax Laboratories' products from several sources, including by chatting with other superintendents online. In the late fall of 1998, he attended an association meeting and stopped by the Nutramax booth. He chatted with a Nutramax representative and told him of his fairway problem. The representative advised Partyka to try the company's line of amino-acid based products. Now they're the base of Partyka's turf-care program.

On April 1, 1999, Partyka and his assistant, Joe Giuliano, applied Nutramax's Macro-Sorb radicular for the first time at 4 ounces per 1,000 square feet. The radicular delivers L-amino acids to enhance root mass production. Partyka



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used it in combination with a biostimulant and a wetting agent. He and his crew kept applying the same combination every two weeks.

When the soil temperature reached 55 degrees, Partyka substituted the Macro-Sorb radicular with Macro-Sorb foliar at 1.5 ounces per square feet, which adds specific L-amino acids to turf to make water and fertilizer last longer. Partyka and his crew used this mix every two weeks through mid-September.

The amino acids in the products provide turf with more energy to pull nutrients and water from soil more effectively.

Partyka and Giuliano continued the Nutramax program in 2000 and 2001. Partyka has seen steady progress, even though the turf's pH is still high (it was 9.58 last year). The damaged fairways have transformed into lush, green turf with a 10-inch root system.

"I've built my program around the amino acids," he says. "It's like our Bible. We never miss an application from April through September."

There are added and unexpected benefits as well. Partyka has decreased irrigation, thanks to the Macro-Sorb foliar. He irrigates less than he did a year ago.

Partyka says the foliar also allows him to reduce application of his organic fertilizer to 1.5 pounds per 1,000 square

feet from 4 pounds per thousand square feet. "I never thought I could go that low," he says.

Partyka also reduced his fungicide applications thanks to the radicular, which helps turf fight off certain diseases so less fungicide is needed.

While Partyka sprays an insecticide to control grubs, he believes the Nutramax program also functions as a strong grub-control process. The turf's roots are so thick and deep that grubs can't destroy them, Partyka says. "Skunks and raccoons can't pull back the turf because the roots are so strong," he adds. (Hence, Partyka has saved money because he's cut back on insecticides.)

Partyka says Nutramax's amino acids are easy to use, are compatible with other products, and they don't clog the sprayer. Of course, they offset sodium from effluent water to make for healthy fairways — and provide peace of mind to worried superintendents. ■

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