**CASE STUDY**

**Spoil the Turf, Save the Trees**

Just when Doug Petersan was considering leveling trees to protect greens at Baltimore CC, he heard about a new amino acid treatment that offered hope.

**Problem**

The composition of trees on four holes prevented air movement and limited the amount of sunlight to the grass in those areas. That combined with people constantly walking on and off the greens made it difficult to maintain healthy turf.

**Solution**

An amino acid formula designed to stimulate the natural processes that control photosynthetic activity, and enhance water and nutrient efficiency of the plant.

Doug Petersan had a frightening vision. The superintendent of Timonium, Md.-based Baltimore CC envisioned himself — with chain saw in hand — leveling handsome trees near four holes on the club’s East Course to correct nagging problems with thin turf.

The layout and composition of the trees was an integral part of the course’s design. Petersan knew that cutting them down would mean altering the feel and atmosphere of the holes, even though the trees’ canopies had enlarged significantly over time.

“Cutting down trees, from my perspective, is usually a measure of last resort,” Petersan admits.

**The problem**

The layouts of the 10th, 13th, 16th and 17th holes on the East Course, known as “tree greens,” made it difficult to maintain healthy turf.

“The composition of trees prevents air movement and also substantially limits the amount of sunlight to the grass in each of those areas,” says Petersan, who has 35 years of experience and is known for his problem-solving abilities. “When you combine that with people constantly walking on and off the greens, you have a great recipe for trouble.

“The situation was getting more desperate with time,” he adds. “There were few alternatives. We knew we had to take more aggressive steps to salvage the greens.”

**Options considered**

Petersan and his crew took all of the normal and available steps to save the greens. “We fumigated, re-seeded and removed trees that didn’t affect the integral design of the holes,” he says, “but we didn’t totally solve the problems.”

Petersan considered a tile system and total reconstruction of the greens. But many of the options were too expensive or would have suspended play on the greens for several weeks or even months.

**Solution chosen**

Just when Petersan considered cutting the trees down, he heard about a new amino acid product, Macro-Sorb, that’s designed to stimulate the natural processes that control photosynthetic activity, and enhance water and nutrient efficiency of the plant. Amino acids, the building blocks of protein matter, are natural molecules.
that take part in a plant's physiological processes. Plants produce their own L form amino acids by performing a synthesis of the required amino acid or an hydrolysis of some protein that contains the amino acid. Plants save energy when treated with the natural L form amino acid. In principle, the saved energy can be used for other processes resulting in a healthy and efficient plant that can withstand stress and the onslaught of disease.

Petersan and his crew applied the formulation to the most depleted greens.

Outcome
“We witnessed quantitative improvement within a few weeks,” Petersan says. “The plants appeared healthier, less yellow, less stressed, and the tests we ran confirmed this.” The plants on the tree greens were in excellent condition after six months, Petersan says.

Comments
Petersan says that the chemical treatments alone could never cure the tree greens. The regular application program of the foliar and radicular versions of the product were applied in conjunction with fungicides, herbicides or light applications of fertilizer every two weeks. Absorption rates increased, Petersan says.

Return on investment
Baltimore CC spent less than 5 percent of its annual chemical/fertilizer budget on 65 acres of fairways, eight acres of greens and four acres of tees on Macro-Sorb and Que-lant-Ca, another Nutramax product used to correct calcium deficiencies in plants.

“We when were able to document that use of [Macro-Sorb] resulted in healthier plants and limited the spread of disease and impact of stress, we knew it represented a major cost savings to us in our overall program,” Petersan says.

A look at Doug Petersan
Doug Petersen, superintendent of Baltimore CC, has more than 35 years of experience, and a solid reputation for managing complex golf courses and solving problems on them.

Prior to coming to Baltimore in 1991, Petersen was the superintendent at Prairie Dunes CC in Kansas, ranked one of the top 25 golf courses in the United States. He hosted four United States Golf Association events over 10 years at Prairie Dunes. Petersen has been the mentor to at least 22 individuals who became superintendents after working for him.

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