Case Study #1

MAINTENANCE

Sticky Situation

Kansas superintendent wanted to use as many organic fertilizers as possible – but without all the fuss

Problem

Superintendent Kenny Hoehn wanted to use as many natural products as possible on Smiley's GC greens in Lenexa, Kan. Unfortunately, many of them gummed up mower rollers, leaving Hoehn and his crew to clean mowers after every few turns and causing longer mowing times.

Solution

Find a natural, high-quality fertilizer to work into the greens quickly, reducing the need to clean rollers and decreasing mowing time.

Keeping ahead of golfers has always been a challenge for superintendent Kenny Hoehn and his staff at Smiley's GC in Lenexa, Kan.

An executive 18-hole walking course, Smiley's gets about 32,000 rounds a year. The course provides short playing greens (six par 4s and 12 par 3s). The 75-acre facility also offers four practice greens, a large driving range with nine distance greens and two miniature golf courses.

The problem

Organic, granular fertilizers have been a part of Hoehn's regular maintenance program for five years. Unfortunately, the available organic products that create a strong root system had one common problem: They were slow to dissolve. Because of this, mower rollers picked up fertilizer.

"It's important to have fertilizer work quickly into the green," Hoehn says. "If you mow without baskets on wet turf and the fertilizer gets picked up by the rollers, it keeps slinging it forward and makes buildup on the rollers a real mess. If it's real bad, you have to wash the rollers after every couple turns."

The fertilizer is also pushed in the direction of mowing and bunches into piles, Hoehn says.

Even if the the baskets are on, granular fertilizer creates another problem when mowing. "You can pick up everything that was just laid down," Hoehn says.

If the fertilizer stays dry, it might not stick, Hoehn notes, but all it takes is morning dew or some irrigation to cause the product to be picked up.

Superintendent Kenny Hoehn wanted fertilizer that produced a strong root system and dissolved quickly into greens at Smiley's GC.

"Golfers also don't like it when their balls pick up something," Hoehn says.

Solution

For Hoehn, choosing the right fertilizer for Smiley's was vital to correct the problems, but it was not easy.

"With the amount of play we get, I need to get fast growth," he says, adding that the need for a fertilizer with good "healing power" is also important.

Research into the different types of granular fertilizer led Hoehn to pick two fertilizers. Both claimed to be of fine grade; natural and organic; contain slow- and fast-release nitrogen; provide materials that would increase microbial activity in the soil;

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and listed feather, meat and bone meal as main ingredients. Hoehn decided the best way to choose one of the products was to set up two trials on two greens.

Green one setup

Eight pounds of product A, a 15-3-8 fine grade, was applied on a green at 8:30 a.m. using spreading setting M and covering about 1,200 square feet.

Fifteen pounds of product B, an 8-3-5 fine grade, was applied on the west side of the same green using spreader setting R and covering about 1,200 square feet.

The applications were watered for 10 minutes. A second 10-minute watering was made prior to cutting the next day. The greens had been mowed two days before. Skies were clear and the temperature was 45 degrees on the morning of the application. The greens also had a layer of moisture from dew.

Green two setup

Two days after the application on green one, Hoehn applied 7 pounds of product A at 10:30 a.m. using spreader setting M and covering about 1,100 square feet on green two. Fourteen pounds of product B was applied on the north side of the same green using spreader setting R and covering about 1,100 feet. Both applications were watered for 10 minutes and watered again that night for 20 to 30 minutes. The green was last mowed at 9:30 a.m. the day before.

The mowing test took place the next day. Skies were clear, it was 43 degrees, and the turf was still moist from the dew and the 2 a.m. watering.

The granulars of product A, according to Hoehn, were difficult to see, but the granulars of product B were highly visible. After two days and watering, product B was sitting visibly on top of the turf and had not worked into the turf layer. But product A was not visible, having quickly worked itself into the turf. Hoehn noted that product B seemed to swell from the moisture.

Consequently, the back rollers picked up a lot of product B when the green was mowed. Mowing heights were also thrown off by the buildup, often by as much as one-sixteenth inch.

Conclusion

After the trials, Hoehn decided to use product A — Roots Turf Food manufactured by Independence, Mo.-based Roots Inc. — which helps produce a strong root system and dissolves quickly into the turf. Even after numerous watering, the fertilizer didn't stick to the rollers or show up in mowing baskets. ■