CASE STUDY



Superintendents say herbicide eradicates pesky weed during fairway renovations

BY LARRY AYLWARD, EDITOR IN CHIEF

ike Hart has been working as a golf course superintendent since 1975, and the 63-yearold says he's never seen anything to rid *Poa annua* (annual bluegrass) on bentgrass fairways.

Until now.

Hart, the superintendent of Danville (III.) Country Club, recently renovated his course's 18 fairways — the front nine in 2008 and the back nine in 2009 — and converted them from Kentucky bluegrass to bentgrass. Working with turfgrass professor Bruce Branham from the University of Illinois, Hart applied Velocity herbicide on the turfgrass three weeks after seeding to keep *Poa* from growing in with the bentgrass.

"We had a bad *Poa* problem here before," Hart says. "It drove me crazy."

Hart believes the old low-mow bluegrass on the fairways grew weak, and the *Poa* kept getting stronger until it overtook the bluegrass.

"Every year I'd watch the *Poa* get more dominant," he says. "So we decided to switch to bentgrass."

Hart had been through such conversions before, and many of them were unsuccessful in his mind because the *Poa* grew back so strongly. To Hart, a successful conversion was limiting *Poa* to a 10 to 20 percent grow-back range so it was more manageable.

Velocity, from Valent Professional Products, features bispyribac-sodium as its active ingredient. Valent says the herbicide can gradually eliminate *Poa annua* and *Poa* trivialis from creeping bentgrass and effectively transition a *Poa*-dominated mixed stand of turf to pure bentgrass.

Hart began renovation of the front nine holes in the fall of 2007. He renovated the back nine a year later. He closed the holes in August in both cases.

Hart slit-seeded the fairways as carefully as possible. Four weeks after seeding, Hart sprayed the fairways with 6 ounces (30 grams) per acre of Velocity. He couldn't believe he was applying a herbicide at such a high rate to such young turf.

"It scared the bejesus out of me when I did it," Hart admits.

Three days later, the bentgrass displayed some yellow and began to thin.

"It went from new lush fairways to a yellow thin stand of grass in one week," Hart says. "I was expecting that to happen, but it didn't do my heart any good to see it."

But Hart felt much better when he

saw the *Poa* in the mix also turn to yellow and begin to die. Then the green returned to the bentgrass in about a week — minus the *Poa*. Hart was impressed.

After the projects were completed on both nines, Hart estimates the turfgrass was 85 to 90 percent bentgrass.

Two and three years later, Hart remains impressed with the healthy stand of bentgrass fairways. And he didn't have to spend a million dollars to get the renovation done.

"The fairways look absolutely fantastic," he says. "We did the project for under \$40,000 and did everything in-house."

Hart continues to battle the low percentage of *Poa annua* in the fairways and he wants to be sure to keep it in check. He applies light rates of Velocity — about 2 ounces (10 grams) per acre — three times a year to keep the *Poa* weak.

"It's the only thing I've seen that works against *Poa*," he says of Velocity.

William Sharp, a research specialist from the University of Illinois who has studied the herbicide's effect on *Poa*, recommends 30 grams of active ingredient per acre sprayed at two weeks apart for a fairway renovation.

Sharp advises the first application be *Continued on page 56*



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made three weeks after seeding.

"Don't let *Poa* mature," he says. "Don't allow annual bluegrass plants to get rooted."

Any yellowing can be masked with an iron application to green up the turf, Sharp adds.

"Educate your members and golfers that they'll see yellowing," Sharp advises. "You want them to know the process is normal."

Kyle Jacobsen, superintendent of Twin Orchard Country Club in Lake Zurich, Ill., attempted a fairway renovation similar to that at Danville, but things went awry because of heavy rains.

Twin Orchard closed 18 of its 35 holes in August 2008. The fairways were sprayed to kill all vegetation. They were then aerified and topdressed before being seeded. Then the rains came, about 6 inches in a few days, and the seed washed out. The fairways were reseeded, but there was no time to do a re-sterilization. Alas, plenty of *Poa* grew in with the bentgrass. Jacobsen wanted to spray Velocity on the fairways then, but the weather turned rainy and cold and he couldn't do it.

Fast-forward to June 2009. With the weather warming and the course getting ready to reopen, Jacobsen sprayed two applications of 6 ounces of Velocity per acre at 12 days apart. While there was mild discoloration to the bentgrass, Jacobsen says the herbicide knocked back the *Poa annua*.

But the weather that summer, which was cool and dry, made for favorable conditions to grow *Poa*. So Jacobsen decided to overseed the fairways with 1 pound of bentgrass per 1,000 square feet and topdress them. The bentgrass grew, but so did the *Poa*.

Jacobsen began applying 2 ounces of Velocity per acre every month with a plant growth regulator application coming monthly two weeks after the herbicide applications. He increases the PGR application by 2 ounces each time (he started in May with an 8-ounce apThis close-up photograph of turfgrass at Twin Orchard Country Club shows healthy bentgrass growing over the top of stressed *Poa annua* plants one day after a 2-ounce treatment of Velocity and 14 days after a 2-ounce treatment of plant growth regulators.

plication). He'll continue this program through mid-September.

"The bentgrass looks off for a couple days after each herbicide application, but it bounces back much quicker and the *Poa* doesn't bounce back," Jacobsen says. "The bentgrass has the competitive edge."

A.J. Powell, a long-time agronomist from the University of Kentucky, says superintendents need tools to take out *Poa* slowly. The problem with wiping out *Poa* in one fell swoop is that suddenly there are bare spots on a course's greens that need reseeding, Powell says. Golfers surely don't want that.

"You don't want to kill *Poa*," Powell affirms. "You want it to go away gradually."