

Experimenting for SUCCESS

Trial, error and ingenuity take a front seat in superintendents' PGR programs



BY MARISA PALMIERI

While superintendents are discovering plant growth regulators serve a number of purposes on the golf course – including clipping and fuel-cost reductions – some superintendents affirm the main reason they use PGRs is to maintain a quality product. That's to say they're bent on suppressing *Poa annua* as best as they can.

As two superintendents prove, that task might lead to pushing the envelope in terms of application rates and methods.

Troy Flanagan inherited a *Poa*-infested course when he became the superintendent at Anthem Country Club in Henderson, Nev.

"When I got here two and a half years ago, one of the biggest concerns of the membership was the greens were becoming infested with *Poa*," he says.

The situation was getting so bad, Flanagan wouldn't have been surprised if the members began considering completely rebuilding the greens. Right away he started a Trimmer program, spraying every two weeks during the spring, summer and fall to slow the *Poa* and allow the bentgrass to overtake it.

"The *Poa* is getting better, but it's not gone yet," Flanagan says.

Luckily, the program has prevented any talk of a total greens rebuild,

which Flanagan estimates would have cost the club about \$1.45 million, not counting the revenue loss from closing for three to four months.

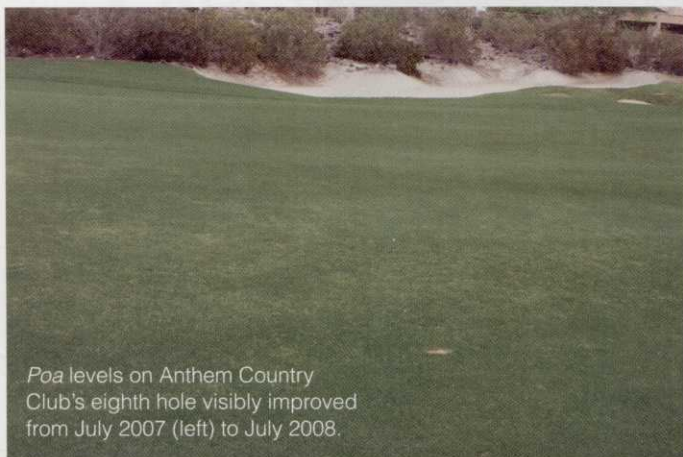
"The membership is happy the ball's rolling,"

he says. "I hope by the end of next summer the *Poa* on the greens will be mostly gone."

At the same time, the *Poa* population had become unwieldy in the fairways, rough and tees, too. The 18-hole course was sprigged with

419 bermudagrass when it was built in 1998, and it's overseeded with ryegrass every September. Flanagan estimates the *Poa* population was at 6 or 7 percent the year of the Trimmit program.

"That might not sound like a lot, but part



Poa levels on Anthem Country Club's eighth hole visibly improved from July 2007 (left) to July 2008.



Anthem Country Club

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of the problem with *Poa* is if you have it in the fairways and the rough, the seedheads will move around easier and infest the greens," he says.

To gain control, Flanagan instituted a PGR program on the rest of the course, too, including two postoverseeding applications of Primo Maxx, two fall applications of Trimmit, a Trimmit application in March, monthly applications only to the fairways from April to July and one final high-rate (0.75 ounce per 1,000 square feet) Primo application before overseeding, which takes place around Labor Day.

"It's been phenomenal," he says. "The Trimmit has taken the *Poa* population down to less than 1 percent."

An added bonus has been reducing fairway mowing.

"In the summer, our slower time for golf, we started mowing fairways two times a week instead of three," Flanagan says. "That saves me labor and fuel. Is it a lot? Well, it's not the main



Superintendents can't be too aggressive when using plant growth regulators because heavy use can compromise turf's ability to recover from stress.

reason I use the growth regulators – that's for quality of product – but it's important with the high cost of fuel."

Though Flanagan's made some strides with his aggressive PGR programs, he's experienced bumps along the way.

"We have to be careful about stunting the greens," he says. "It's happened before. We've been too aggressive, they've gone off color and essentially stopped growing."

Though such a situation can make golfers happy because of faster greens, it compromises the greens' ability to recover from any stress.

"When that happened, we knew we had to

back off and make an extra fertilizer application to get them to grow out," Flanagan says.

He also learned a lesson after making Trimmit applications to the greens, fairways and rough during the winter months. In addition to going off color, it took most of the winter for the greens to regain their ability to grow.

"The first year we continued to make applications every other week during the whole winter on greens," Flanagan says. "They turned grey – the members asked a lot of questions. We knew we definitely shocked them."

Flanagan learned Mother Nature is a growth regulator herself, so there's no need to make ap-

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plications during the coldest months in Nevada. Last winter, the second season of his aggressive PGR program, Flanagan only made Trimmit applications on greens during weeks when the weather was warm, not every other week.

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Experimenting with PGRs to control *Poa* also has yielded good results at Merion Golf Club in Ardmore, Pa. There, director of golf course operations Matt Shaffer oversees 50 employees working on two courses – the championship East Course and the West Course. The championship course, which is preparing to host the 2009 Walker Cup and the 2013 U.S. Open, has hosted 16 USGA championships, more than any other golf course.

“We use PGRs for two primary reasons – *Poa* control and playability,” Shaffer says, noting the East Course’s 13-year-old bentgrass greens are about 5 percent *Poa*.

Combined, the courses have an annual maintenance budget of about \$2.8 million. Less than 2 percent of that is spent on PGRs.

“But they have more than a 70-percent effect on our playability,” says Shaffer, who maintains Merion’s greens daily with Stimp meter readings of 11 to 12.

Because the maintenance staff is so vigilant about the course’s playability, it has experimented with a unique PGR application method during the past few years.

“Starting in the very early spring, we dab the *Poa* with a 20x rate of Cutlass and Primo and then we continue to maintain our regular spray applications overtop,” Shaffer says. “It turns the *Poa* jet black, completely shutting it off. The Cutlass goes crazy on the bent, and it crawls across the void. It looks horrible, but it doesn’t affect putting.”

Shaffer credits Merion’s agronomist, Dave Petfield, with creating this strictly experimental application method.

“He came up with it four or five years ago, and we’ve been doing it ever since,” Shaffer says. “Dabbing is really common, but I don’t know anyone else who does it with a 20x rate of Cutlass and Primo. We’ve been doing it for a number of

years, and that product was never commercially available. Now that product is called Legacy.”

Merion’s maintenance staff began using Legacy on its West course this season at 6 to 6.5 ounces per acre. Previously, it had been applying Trimmit at 35 ounces per acre.

“It’s now a quarter of the cost and 100 percent more effective,” Shaffer says.

There are some potential drawbacks to this method, Shaffer acknowledges. One is bumpiness. Merion double-cuts and rolls greens daily, but courses with a higher height of cut might not create the smooth surface that makes this method work.

The second is color. Jet-black spots on the greens aren’t something members expect.

“You have to educate your members,” Shaffer says. Sooner or later they understand, especially when it doesn’t affect play.”

But TV viewers are another story.

“We used this method this spring, but we probably won’t next year because of the Walker Cup,” Shaffer says. “Our members understand, but the general public might not.” GCI

Other PGR strategies

While *Poa* control is one of the main reasons superintendents use PGRs, it’s not the only one. Here’s a look at three more PGR uses.

During championship years, the maintenance staff at Merion Golf Club in Ardmore, Pa., will use PGRs in the rough to keep it tighter and healthier, says director of golf course operations Matt Shaffer. Though Shaffer hasn’t historically used PGRs in the rough during nonchampionship seasons, he’s thinking about doing so considering the rising costs of fuel and labor associated with cutting 50 to 60 acres of rough on the championship course and 45 acres on the West course.

Though the cost to apply the growth regulator may be high in labor, Shaffer believes using PGRs on the rough would save in the end.

“I know some superintendents who are using it all the time in the rough,” he says. “It’s certainly something we’re going to consider. The cost offset would be close, and you’d have a stronger rough because the plant wouldn’t be using all that energy for topical growth.”

For the last six years, David Hay, CGCS, has incorporated Primo into Indian Wells Country Club’s overseeding program. The 36-hole facility in La Quinta, Calif., has common bermudagrass primarily and 328 bermudagrass in the summertime. The course is overseeded with perennial ryegrass in October.

“We started doing research with Primo – it was a joint venture between the Hi-Lo Desert Golf Course Superintendents Association and Syngenta – and after seeing the results, we started putting some of it into practice and it worked,” Hay says. “Before that we scalped real hard to get rid of the bermudagrass and return to ryegrass. We would hope it would cool down,

and the bermuda wouldn’t come back.”

Now, instead of relying on hope, Hay and his crew apply Primo in the overseeding process after making the first cut in short turf areas like fairways, tees and approaches.

“It helps slow the bermuda down and gets the ryegrass to start pillowing so it matures a little quicker,” he says.

Though this method costs about \$1,000 more per season than the old way of doing things, it’s worth it for Hay.

“We’re getting a better stand of turfgrass as early as we can so it will mature as fast as possible and handle wear and tear,” he says.

Ken Nice, superintendent at Bandon Dunes Golf Resort in Bandon, Ore., considers his approach to PGR use to be unique. He rarely uses them.

Bandon Dunes’ goal is to create a links-style tight, fast surface. As a result, the course’s primary turf type is fine fescue; plus, it has low nitrogen inputs.

“Fine fescue is a relatively slow-growing turfgrass,” Nice says. “It’s a slow metabolizing grass, and under normal circumstances it doesn’t grow a lot. The second part is we’re using about a quarter of the nitrogen than a conventional course would in the U.S.”

Though Nice has used Proxy for *Poa* seedhead suppression on greens and green surrounds in the past, he doesn’t have a regular PGR program.

“We’re trying to create a surface that’s authentic to true links golf,” he says. “So if you were playing the old course at St. Andrews or Muirfield, then you could come to Bandon and say this is the same surface I saw in Scotland.” GCI