

Putting Green Regrassing and So Much More

A putting green regrassing project became a significant golf course regrassing project.

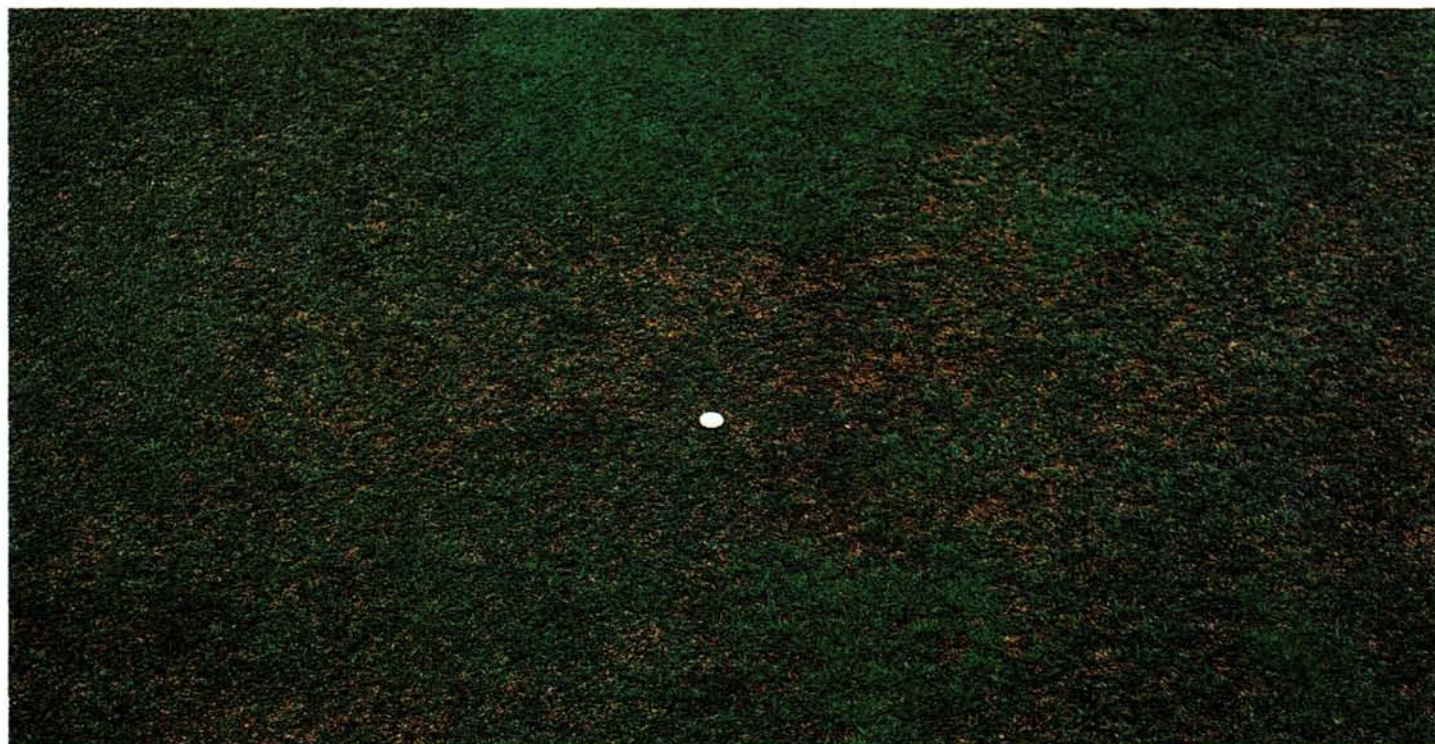
BY WARREN SAVINI

The agronomic issues behind putting green regrassing are fairly simple. Establishing new creeping bentgrass on our old push-up style putting greens eliminated many potential turfgrass problems. However, the overall planning and implementation of such a project was laced with hard work, sleepless nights, and a little uncertainty. A simple regrassing project for the putting greens at Rolling Green Golf Club turned into so much more. The goal of this article is to provide some insight into the reasons for regrassing and some lessons learned during implementation.

When you mention that you are from Philadelphia, people try to impress you with their best Rocky impersonation. *The City of Brotherly Love* is known for many things: Independence Hall, The Liberty Bell, soft pretzels, and cheese steaks are just a few of them. Unfortunately, the Philadelphia area is infamous for summers that seem to go on forever and grasses that are often ill-suited to tolerate them. The heat and humidity take their toll on the grass and golf course superintendents alike.

Many older Philadelphia golf courses date back to the early 1900s. This long tradition includes many push-up greens

and a lot of tired *Poa annua*. Ask superintendents about their number-one concern during these long, hot summers and most will answer, "Keeping my *Poa annua* alive." The demand for green speed has chased out most of the old bentgrasses. We cut greens extremely low just to keep pace with the golf course down the street. This sets the stage for summer putting green problems: temperatures in the upper 90s, double cutting, rolling, topdressing, and anything else that can be done to promote green speed. The next thing you know, *Poa annua* is infected with anthracnose, bacterial wilt, and any



Anthracnose and bacterial wilt caused turfgrass losses of up to 60 percent. Playability was greatly reduced and the membership was not pleased.

number of other maladies. Such was the case at Rolling Green Golf Course, and the greens failed miserably. We all know *Poa annua* can be pushed too far, but everyday expectations throw us in the line of fire and away from sane agronomics.

Rolling Green Golf Course was designed by William Flynn and opened in 1926. I accepted the superintendent's job in late winter of 2001. The greens had had a serious bout of anthracnose the previous summer. I came from a course with 100 percent *Poa annua* greens. When the search committee from Rolling Green toured my golf course during the hiring process (in October, not mid-August!), the committee saw smooth, fast *Poa annua* greens. I guess that sealed the deal, and I was hired.

THE PROBLEM STARTS

Anytime you take a new superintendent's position, it is a challenge. When anthracnose is involved on *Poa annua* putting greens, it is a huge challenge. In March of 2001, we noticed small yellow spots infecting our *Poa annua*. A sample sent to a diagnostic lab confirmed that anthracnose was the culprit. All of the appropriate fungicides you can think of were applied to control the disease. By mid-April, the anthracnose was under control, and I was thinking that we had just survived the first glitch of the season. Little did I know what was still to come.

In mid-May, dime-sized spots started to form on the high and dry areas of the *Poa annua* greens. Heavy spring rains saw these spots progress to the low areas of the greens and coalesce into larger areas that mimicked anthracnose. A turf sample was sent to the University of Maryland, and the diagnosis came back as bacterial wilt. Every known anthracnose fungicide was used, and now we had to spray copper hydroxide to control bacterial wilt. USGA agronomists, turfgrass pathologists, and golf course superintendents all came to see the devastation.



Many trees were removed to improve sunlight penetration prior to regrassing the greens. Several greens struggled during the summer because more trees should have been removed.

By the end of June, turf loss on all of the greens ranged from 10 to 60 percent. A plant pathologist was brought in to make recommendations to the Green Committee. These discussions provided background information for the Green Committee to make an educated decision about the problems and potential solutions. One option was to continue spraying fungicides, overseed the greens with creeping bentgrass in August in an effort to increase creeping bentgrass populations and pray that the problems did not repeat themselves. This option was filled with a great deal of uncertainty. The second option was to close the course in August, fumigate the greens with methyl bromide, and establish one of the newer creeping bentgrass varieties that are more resistant to anthracnose and tolerant of low mowing heights.

THE DECISION

After the dust settled, the committee looked at playability, lost revenue, canceled outings, and club championships. Expectations dictated that we choose the best option for the future of the club. In early July, the Board of Directors voted unanimously to close the course in early August to fumigate and regrass the greens. My head was spinning. It

was my first summer and the greens were hit with every problem in the book. What did I get myself into this time? Full membership support during this time of crisis helped the situation. Unfortunately, we had only three weeks to pull the project together. This business has a way of humbling you very quickly, and I was humbled once again. Such is life when working with nature.

Preparations began the following morning. We scheduled visits to other golf courses in the area that had gone through similar regrassing projects and evaluated their methods and results. These trips turned out to be valuable, as there is no substitute for experience. Creeping bentgrass variety, seedbed preparation, and satisfaction with the final product were all discussed. Every course had one common recommendation: remove enough trees to improve direct sunlight penetration to the greens. Bad growing environments lead to bad greens, regardless of the grass used.

The scope of the project expanded. Not that regrassing the greens was not enough; the list of renovation ideas kept growing since the course would be closed. Regrassing the fairways and tees, practice tee expansion, creek restoration, and, of course, tree removal were all discussed. Time was of the essence. It

was already the second week of July. Contractors still needed to be locked in for the project to get started in early August.

The final proposal included the removal of 72 trees and the heavy pruning of 20 more, fumigation and regrassing of the greens to creeping bentgrass, fumigation and leveling of all tees, fumigation and regrassing of 14 acres of fairways and all approaches, creek restoration on the seventh and eighth holes, and reconstruction of the 16th green to USGA specifications. This was no longer a simple "gas and regrass" project. Hiring contractors to start this project was a major task. The logistics required cooperation from all parties involved for this project to be a success. What started as a discussion of putting green regrassing had grown into a major project, although the putting greens were still the focus. Fortunately, things came together rapidly on a tight timetable.

The greens were fumigated with methyl bromide and seeded on schedule during the second week of August. Trees were coming down and trees, fairways, and approaches were fumigated with Basamid and seeded to creeping bentgrass. Visits by USGA agronomists and area superintendents who had gone through similar projects were always welcome. While you think that you can pull together a project of this magnitude in a short amount of time, doubt creeps into your mind and you wonder if everything will come together. The support of your peers greatly helps pull you through the tough times. One lesson I learned is not to be afraid to ask for help. Turfgrass academia, USGA agronomists, and area superintendents are all resources at your fingertips. All you need to do is ask to get input. I used all of these resources before, during, and after this project.

By the middle of September all greens, tees, and fairways were seeded. We had a great fall with an extended Indian summer. There was an initial concern that heavy pesticide use for disease control was inhibiting germination. Waiting for germination on the greens was the most gut-wrenching aspect of the project. What would happen if the grass did not grow? Fortunately, I never had to answer this



When the fumigation tarps were applied in early August 2001, the finality of what was about to happen began to really sink in.

question. Seed germination was slow in areas with insufficient irrigation coverage, but hand watering helped with this problem. During grow-in, the shortcomings of an irrigation system become obvious. This is just one more problem that had to be addressed. Insufficient tree removal had more to do with slow germination than anything. As winter approached, we felt that the project was successful. With all the projects completed, it was time to recharge my batteries and prepare for the spring.

The course reopened for play on April 13th. For the most part, the members were pleased with the regrassing and other projects. The summer heat of 2002 started in the third week of June. Record heat coupled with significant water restrictions ensued — just what I didn't need — a long, hard summer. The greens held up to heavy play (180 to 210 rounds per day). The collars thinned significantly on many of the greens, providing more stress for me. Greens located in pocketed areas pro-

vided problems throughout the summer. This took me back to our visits to other golf courses. They told us to remove as many trees as needed, and they pointed out that bentgrasses need more sunlight than *Poa annua*. Additional tree removal was scheduled for the winter of 2002–2003. By the fall of 2002, the greens had recovered from the summer. Overall, the entire project was a great success, and we look forward to next summer.

SUMMARY

Regrassing greens to creeping bentgrass can eliminate a lot of problems. Although these new grasses come with challenges of their own, the new problems are more manageable than anthracnose and bacterial wilt! The entire process was stressful and not as easy as some may think.

Is regrassing right for your golf course? The greens will answer that question for you.

Repeated bouts of anthracnose,

summer patch, and maybe a little bacterial wilt for good measure may indicate that you are fighting a losing battle. If expectations cannot be met, regrassing should be considered. Take the time to educate yourself with facts and figures about regrassing. Use consultants from universities, the USGA, or the private sector to provide input. Course officials seem to be more willing to act on recommendations from a third party.

The most important thing is to communicate with your Green Committee and course officials. Keep all lines of communication open and provide continuous updates on progress. Be prepared for a very trying time during the actual implementation of any major project. In spite of the best planning, headaches and surprises will occur. However, once completed, the end result in our case was very rewarding.

WARREN SAVINI, JR., is the golf course superintendent at Rolling Green Golf Club.