INCREDIBLE SHRINKING GREENS

Careful monitoring and maintenance practices mitigate decreasing green sizes.

BY DAVID MCPHERSON

Just like golf, mowing putting greens is a game of inches.

For good operators, the edges of putting greens and the collar definitions should stay relatively consistent. But for even the most seasoned superintendents, maintaining the size of greens is a challenge.

An inch isn't much, but over the course of a golf season, an inch here and an inch there add up to an incredible shrinking green. Often, shrinking occurs because of mower operator inexperience or fear of getting too close to the collar. Superintendents are sometimes afraid to scalp the edges, and over the years it just starts inching its way into the middle.

How do superintendents keep their greens from shrinking over time? Most cut back the encroachment in the spring or fall and hold onto the green sizes. With new greens it's done easily by probing the green's mix or sometimes using tracer wire.

For Sam Samuelson, CGCS at Haggin Oaks in Sacramento, Calif. (where Ben Hogan won his first professional check in the 1938 Sacramento Open), maintaining the size of his greens is a process that starts each spring.

"I go out with a spray gun and re-paint the edges white where I remember them to be and then have the mowers cut out to these lines," he says. "The edges of the greens look scalped for a couple of weeks, but heal in eventually and all is fine. If I were going to be more exact I would measure the edges from irrigation heads and record the measurements, then re-line from those measurements every spring."

Dave Schlagetter, CGCS at Indian Hill Club in Winnetka, Ill., also uses a spray gun, but he developed a unique way to keep the edges of his greens from shrinking.

"I took a standard turf paint gun, drilled a hole in the bottom, and then inserted a 36-inch dowel rod in the hole," he says. "Then, I walk the collar edge with the end of the rod at the bluegrass edge. This puts the paint gun directly over the putting green edge with a 36-inch collar. Every 10 feet or so, I'll paint a dot to remind the mower operators where their edge should be."

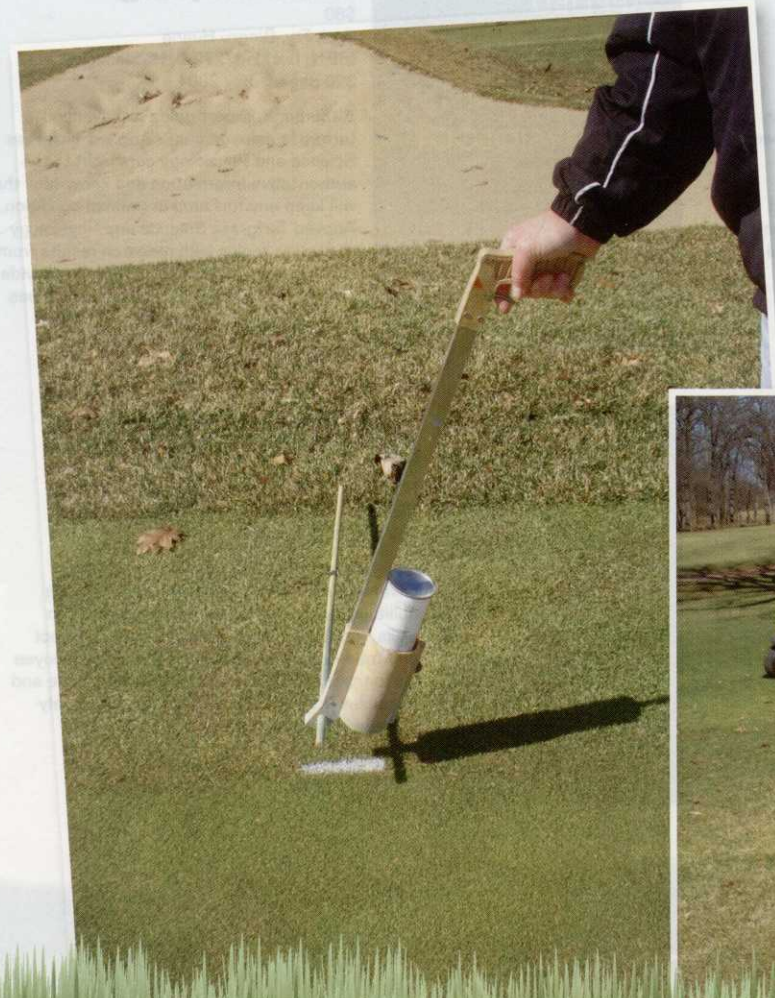
While he has not adopted the practice, Dustin Riley, CGCS at Oconomowoc Golf Club in Oconomowoc, Wis., says some superintendents bury an irrigation wire under new greens to outline the original green. This wire can be connected to a wire tracer to locate and redefine the original green.

Riley prefers to conduct regular checks to maintain the size of his greens.

"I attempt to check green edges and collar widths every month," he says. "I have a 24-inch T-stick I use to measure and position the collar. I locate and place the T-stick across the desired width and location of the collar and paint a dot on either edge of the T-stick. The greensmowers will then connect the inside dots when they mow their cleanup pass along the edge of the green, while collar mowers will connect the outside dots."

It's much easier to sustain the correct green edges with walking greensmowers than with riding ones, Riley adds.

To keep her "ring" around the collar in check, Nancy Pierce, accredited golf course superintendent at the Links at Crowbush Cove in Prince Edward Island, Canada, says



To keep greens from shrinking, Dave Schlagetter, GCCS at Indian Hill Club in Winnetka, Ill., uses a spray gun with 36-inch dowel rod attached to mark points to indicate where mower operators' edges should be.

DAVE SCHLAGETTER

she relies on Mother Nature.

"We cut our collars with a 21-inch machine," she explains. "This is the same machine we cut our greens with, but only at a different height as the collars themselves are about 18 inches wide. Before cutting the green, the person puts the mower on the collar, making sure the reels are not engaged so they are not going to cut the collar, and he makes a pattern with the mower on the dew that's on the collar.

"Once they've gone around the entire green, they engage the mower's reels and then immediately do the cleanup pass around the green following the pattern in the dew. They can then cut the remainder of the green."

This method works well for Pierce because, as she says, "On PEI, there is almost always dew."

Schlagetter drilled a hole in the bottom of a standard turf paint gun and secured a 36-inch dowel rod in the hole to create his guide for marking greens' edges.

For superintendents with limited budgets and no pressure to immediately restore greens, they slowly reduce the height of cut in the areas of the green that have shrunken over time until the turf returns back to green height in a healthy condition.

"If it's a matter of the green just being six inches from its original edge, superintendents may try to slowly work it out by mowing and scalping a quarter of an inch a week for the first eight weeks of the season, cutting what has become the collar/fringe of the green back down to green height," says Rick Phelps, golf course architect with Phelps-Atkinson Golf Course Design based in Colorado. "The problem with this practice, and why many superintendents don't like to do that, is it looks pretty ugly at first.

"In a way, that's how it happened in the first place," he adds. "You get young kids operating greensmowers and they are trained

Dustin Riley, CGCS at Oconomowoc (Wis.) Golf Club, uses a 24-inch T-stick to measure and position the collar.

DUSTIN RILEY

from day one not to scalp ... by the time you get to the edge of the green, you better be lifting your wheels off the ground because if you don't you'll scalp that collar down to the height of the green and it'll turn yellow and look ugly. So, what they do is be careful and cheat in an eighth of an inch. You can imagine if this eighth of an inch is done every day for the entire growing season, the green could shrink eight inches to a foot by the end of the season. That multiplied by 20, 40, 60 years of growth ... absolutely greens are going to change shape and size."

RESTORING GREENS

While all these maintenance practices help prevent greens from shrinking, the reality is even the most skilled superintendents watch their greens get smaller over time, and they often want a faster way to recapture their lost greens.

Enter an architect. Working with the superintendent, an architect can help restore greens to their former widths. The first thing is to pinpoint when the original greens were built; this determines the best way to recapture them, Phelps says.

There are three main eras of golf course construction: pre-USGA greens (generally anytime before 1970), 1970 to 1990 (major era of USGA greens known for their sand-base) and post-1990 construction. "If you look at a course built in 1928, the only definitive indicator an architect has to find the old green is to study the contours," Phelps says. "You examine what the grade looks like on and around the green as well as the designer's strategy to try to figure out if there were any hole locations back in a particular corner at some point in time. You can also look at old photographs and drawings if there are any. You're like an investigator, trying to figure out what the intent of the original designer was."

On USGA greens, Phelps says you can probe to see where the sand base stops and topsoil starts; doing so will give you a good indication of where the original green ended. From the 1990s on, many architects began using a plastic membrane under the greens.

"The intent wasn't to have an indicator where the green was, it was to keep moisture in, but effectively it gives a marker of where the original edge of the green was, so you can dig down and find that old plastic barrier," Phelps says.

CONTEMPLATING SOLUTIONS

Depending on how far the green has crept in and how it was constructed, it may be possible to enlarge it by scalping the grass back out and overseeding it, Phelps says.

"For pre-1970 greens, you can often use topdressing and overseeding to expand the green back out because the soil under the collar is the

same as under the green," he says. "But when dealing with USGA greens, you have to be careful as you don't want to mix soil types, which would cause superintendents nightmares."

Georgetown, Ky.-based architect Kevin Hargrave says the more expensive option, rather than these piecemeal solutions, is to recore the whole green after surveying the surface, and then bring back the sub grade to USGA specifications.

"What a lot of clubs elect to do is to push the green out, core those pad areas where it's evident the green has inched in and then create a modified soil profile mix that best as possible matches the characteristics of the existing green.

This process was the solution members chose at Southern Hills Country Club in Tulsa, Okla.

"When we dug into those greens they had clay tile, so we pulled that all out, redid the sub grade, surveyed the sub grade and then brought it back up from there," Hargrave says. "When I first started doing these jobs it was messy; the contractors would disturb more. Now, they can go out in a day, do all the work and have it cleaned up by the next morning. You can get a green expansion done in two to three days and a lot of members don't even know they were out there."

Whether your greens have shrunk an inch or a foot, there are many ways to restore them to their original size. It all depends on when the greens were built and your budget.

"We've had a lot of superintendents, even at high-end clubs, who have pushed their greens back out and then a year later they are already starting to encroach back into the center of the green," Hargrave says. "It's something there is no way to totally cure; it's going to happen, the superintendent just needs to be leery of it over the year, check and monitor those areas, and repin now and then to get them back to where they are." **GCI**

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