

Weird Science

Some superintendents swear by Marc Logan's agronomic method to rid greens and fairways of *Poa annua*

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Golfdom



For years, salesmen and companies have promoted products and methods they say result in that magic combination of improving turf quality while saving money. Rarely has the reality matched the hype.

But on layouts in California, Oregon and Montana, established golf course superintendents say that Greenway Golf Vice President Marc Logan has come up with such a panacea. They say his method of ridding greens and fairways of *Poa annua* and moss while encouraging the growth of desirable grasses not only improves conditions but also reduces maintenance budgets.

Not everyone buys into the program, however. Many, including academic types and superintendents, have continued doubts.

Logan's plan is simple: Increase the acidity of the soil through iron applications while reducing fertilizers, especially nitrogen. When nutrients are required, elemental fertilizers should be used. He also calls for lessening disturbance through the reduction of hollow-core aeration. He wants greens mown as low as possible in an effort to reduce organic buildup.

"Bentgrass requires an acid environment," Logan says. "So I asked myself: How could you put that in place and have a playing surface people expect day in and day out."

Logan, 47, is a native of Australia where he earned a turf degree and became a head superintendent. It was during that time that Logan said he was struck by how many links and seaside courses around the world had turf dominated by bentgrass and fescues with *Poa annua* making up a small percentage of the grasses. Logan said he looked into the reason and uncovered research compiled over decades from places such as the United Kingdom, South Africa and the United States that said soil high in acidity favors bentgrass while providing unsatisfactory growing conditions for *Poa annua*.

Jesse Gooding, superintendent at the municipally owned 36-hole Heron Lakes Golf Course in Portland, Ore., subscribes to Logan's theory and has proof that it works.

"You just have to ask the golfers, that's my proof," Gooding says, adding that at the same time the players were raving about his course's condition, he was cutting his pesticide budget by as much as \$20,000 a year.

Down the coast at the 36-hole Monterey (Calif.) Country Club, where superintendent Bob Zoller has been running the show for more than 30 years, he has cut back significantly on his fertilizer applications. Where once he applied as much as 1 pound of nitrogen per 1,000 square feet a month on greens and fairways, he has reduced that to 3 or 4 pounds a year on his greens and as little as 2 pounds a year on the bentgrass/fescue fairways of his Dunes Course, a Rees Jones renovation of a Seth Raynor design. At the same time, greens that were once nearly 100 percent Poa are now as much as 80 percent bentgrass. Fairways have seen similar transitions. The results are much the same on the Shore Course.

It was during his tenure as head greenkeeper at Mount Lawley Golf Club in western Australia, which opened in 1929 and is about 10 miles from the ocean, that Logan first implemented his theories transitioning the greens from Poa to bentgrass. More than 20 years later he says the course is still following his advice.

After implementing his program on a few more courses in Australia, Logan moved to the United States in early 2000 and brought his ideas with him. While growing in the Jack Nicklaus-designed Mayacama Golf Club located in California's Sonoma Valley, Logan met George Kelley, a former PGA Tour player who had become the owner and developer of Stevinson Ranch Golf Club, an 18-hole public course he designed with Bruce Harbottle III, also in central California. Kelley was impressed with Logan's ideas and the two formed Greenway Golf in 2002 as a golf course consulting company that morphed into a management company in 2006. Stevinson, Calif.-based Greenway Golf manages all facets at three facilities and the maintenance programs at five others.

Logan says within four months of putting his plan to work at Stevinson Ranch, the long-term moss problem was eliminated and the Poa was reduced significantly.

Once Greenway was formed, Logan took his show on the road trying to convince superintendents in the West that his way of Poa reduction -- even in places like Northern California where Poa is the dominant grass -- worked. Not surprisingly, his method was, for the most part, rejected. Some balked at the sheer simple fact that his theories run counter to the way virtually every turf school teaches how to maintain bentgrass and the way nearly every superintendent maintains bentgrass. Others bristled at the fact that



Marc Logan says soil high in acidity favors bentgrass. Poa annua, on the other hand, doesn't like

Logan considered his plan proprietary, which courses paid to learn and were then forbidden to pass on to other courses. There were those who gave Logan's plan a go.

Several superintendents say Logan's method rids greens of troublesome lime-green *Poa annua*.



At Monterey Peninsula, Zoller maintains an inland 18 holes and a seaside 18 holes, both which have undergone major renovations in the last 10 years. According to Zoller, he has more bentgrass on his greens, which are A-4, than anyone in the area, even though *Poa* was the dominant grass from tees to greens within a few years of the renovations. Zoller said he first met Logan when he appeared in his office one day pitching his plan, which he had heard about from his brother-in-law, the general manager at Heron Bay. Zoller was not immediately impressed.

"Lots of guys stop in with the latest miracle," he says.

At the time, Zoller was having moss problems and agreed to let Logan prescribe a cure.

"By golly if it didn't help my situation," Zoller says.

From there, he was hooked and adopted the full Logan regimen that includes cutting back on nitrogen, frequent light applications of iron and reduction in hollow-core aeration, and verticutting. Zoller also uses Trimmit plant growth regulator as part of the program.

"There are a couple ways of doing it, aggressively or modestly," Zoller says of Logan's plan. "I realized right away some of the *Poa* was [dying] too quickly."

Since then, Zoller has been going about it slowly and the members rave about the conditions.

It was also a moss problem at Stock Farm Club Golf Course in Hamilton, Mont., that was the reason for Logan getting involved. Superintendent Don Polson, who was there when the L-93 greens were planted in 1998, was mystified to discover the problem shortly after the course opened. The moss problem gradually became worse, no matter what he did to stop it. "I've always been able to accomplish what I wanted, given the resources," Polson says.

After hearing about Logan, Polson invited him out to his course. Logan explained his ideas then suggested Polson accompany him on site visits to about a dozen courses in California where he was consulting. Polson did and was sold on the plan, which he implemented with immediate success.



Oregon State University's Tom Cook says no one can make *Poa annua* disappear magically.

He continues to mow his greens very low and keep them very hungry, both in an effort to reduce thatch buildup on the Tom Fazio design. He puts down potash and manganese, according to the plan. Members at the exclusive course rave about the greens, which roll between 10 feet and 11 feet on the Stimpmeter in the summer.

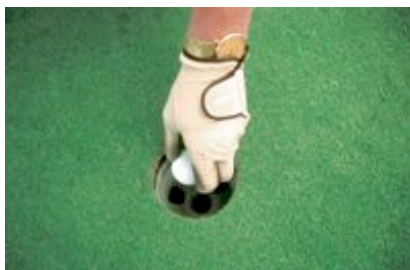
Stock Farm sees less than 9,000 rounds a year, but Gooding is hosting between 85,000 and 90,000 combined rounds on his two courses at Heron Lakes where he triplexes greens at .065 with smooth rollers. He too has cut back on nutrients while putting down lots of iron in the form of ferrous sulfate. As a result, the bentgrass has hardened off and is producing wonderful putting conditions.

"We're growing a playing surface and not a crop," Gooding says. "We don't want the turf to grow, we want it to just sit there."

For all the rave reviews Logan has received, the majority of superintendents approached by him refuse to try the program even when prominent superintendents tout the method.

"If we're not intelligent enough to question the status quo, we'll never evolve," Zoller says, pointing out that what Logan advocates were methods used decades earlier. "This isn't anything new. This is a retro program."

The USGA Green Section magazine from April of 1924 touts the use of iron sulfate to eradicate dandelions. Zoller had an English dandelion problem until Logan came into the picture.



Superintendents also say Logan's agronomic method to control *Poa* can be used to control moss on greens.

Polson is surprised Zoller's success has not changed more minds in the Monterey area. "If I was one of the guys next door, at Pebble Beach, I'd be jumping all over that," he says.

Another reason for the hesitant attitude may have to do with general misunderstandings of the program.

"They haven't embraced it because they don't know how to implement it," Gooding says. "It's just a whole different way of doing it. You have to be interested in what is happening."

As Zoller points out, this is not a boilerplate approach.

"He gives you a template to work with. It's up to the superintendent to make adjustments to his situation," he adds.

There are serious resignations about Logan's theories. In the March–April edition of the 2005 Green Section Record, Tom Cook, associate professor of horticulture at Oregon State University, authored an article challenging Logan's ideas without ever naming him specifically.

On the agronomic side, Cook doubts the success of Logan's theories. He says it might work in a place like New England with a short growing season and stresses such extremes in temperature, but not in the Northwest where grass grows 10 months out of the year.

According to Cook, annual bluegrass dominates where it does because it is the perfect grass for many areas throughout the country. If Poa is removed from putting surfaces, greens become "islands of bentgrass," with superintendents having to constantly fend off the intruding Poa, he says.

"This notion that we can somehow make Poa magically disappear; it does not work," Cook adds. "All you're doing is making sick Poa, but you're never going to kill it."

In his article, Cook predicted courses that change agricultural practices to what Logan advocates would see increases in problems such as anthracnose, Fusarium patch and nematodes. He also expects courses with sand-based rootzones to encounter problems when nitrogen in the rootzones is seriously depleted.

But Logan remains undaunted. He thinks the future will prove him right.

"I've always said time is on my side," he says. "There was skepticism the first one or two years, but it's becoming more and more irrefutable that we can attain Poa control and eradication."