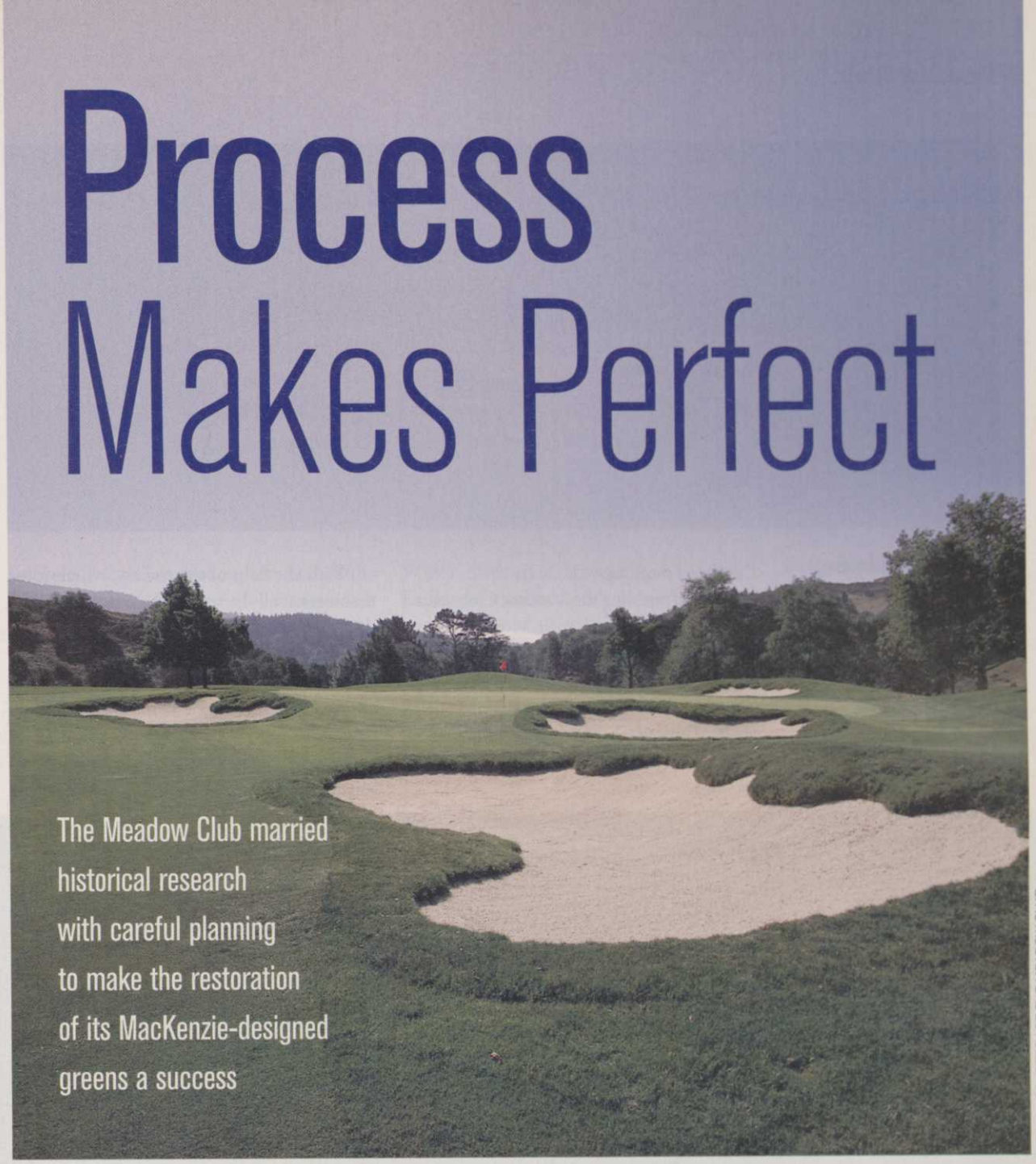
Process Makes Perfect



The Meadow Club married historical research with careful planning to make the restoration of its MacKenzie-designed greens a success

PHOTOS COURTESY OF THE MEADOW CLUB

BY GEOFF SHACKELFORD

Thanks to Rees Jones' well-publicized project at The Country Club at Brookline (Mass.) 15 years ago, "restoration" became a modern-day buzzword in golf. Unfortunately, the meaning of restoring an old golf course has been distorted. While examples abound of projects that are universally adored, just as many were sidetracked by absentee architects, nutty committeemen, stubborn contractors and ill-prepared maintenance operations.

That's why the in-progress restoration of the Meadow Club, the 75-year-old Alister MacKenzie-designed course located in Fairfax, Calif., provides a refreshing case study. All of those involved in the restoration project have adhered to simple values and the same goals.

The club's leaders reviewed quality historical research, constantly communicated with a skeptical membership about the project, hired an architect who revered the original design, and allowed a talented superintendent to mix art and science to solve interesting agronomic dilemmas.

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Meadow Club's members decided to pursue a pure restoration of the greens – one at a time and beginning with the fifth hole.

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The idea of restoring the Meadow Club started when the Alister MacKenzie Society first met in 1987 at the course with an uncertain mission. Inspired by architecture writer Ron Whitten, who was trying to research MacKenzie's work, Meadow Club members realized how much their treasured course had changed over the years.

With the help of the society, which joins members at all the remaining MacKenzie-designed courses, members from Meadow Club were inspired to research and celebrate their course's original design. However, it took about 10 years for them to collect the information.

"We decided around 1997 that we had collected enough information to proceed with a

few holes," says Gary Nelson, a founder of the Alister MacKenzie Society and a Meadow Club member, who has researched MacKenzie's work extensively. "We decided it was going to be a pure restoration, and there would no changes to the course."

Meadow opened in 1927, and the ode to St. Andrew's layout featured few trees, wide fairways, huge greens and jagged bunker edges. Within three years, however, the course suffered from the effects of the Great Depression and much of MacKenzie's revolutionary design was lost.

"When members fled and money was scarce, they apparently decided to reduce the greens by having one guy stand in the center of a green, always the flattest area," Nelson

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Michigan architect Mike DeVries, a student of MacKenzie's designs, was hired to restore the intricate contours of the greens.

The restored fifth green was well-received by most Meadow Club members.

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says. "Where he could reach with a hose, that became the green."

Though the course had undergone several renovations that eliminated much of MacKenzie's distinctive style, no major work had been done to the green complexes, meaning the intricate contours still existed. Restoring the contours, however, required patience from a membership that had grown accustomed to small, simple greens. Finally, in 2000, members decided to hire Traverse City-based architect Mike DeVries, a northern Michigan native who grew up studying MacKenzie's Crystal Downs co-design with Perry Maxwell, to handle the renovations.

Known for his well-crafted bunkers and meticulous hands-on approach to planning and

construction, DeVries guided the club and long-time certified superintendent Dave Sexton through a master plan that tackled one hole at a time and kept the work in-house. Building on Sexton's expertise in project work, the club formed a plan to reclaim the greens.

"When people reclaim these areas, it's not always clear what was green and what wasn't, even if you have photos," says DeVries, whose research was vindicated once the sod was lifted. Intricate bumps were found that needed to be preserved to maintain the subtle flair of MacKenzie's work.

Preparing for the restoration

Sexton created a step-by-step program for restoring the greens, which was carried about by a special yearly project crew. It was simple and nearly perfect, as illustrated by the first green they chose to restore, the par 3 No. 5.

The original MacKenzie No. 5 design featured a green double the size of the 5,000-square-foot version the members had grown to know.

Based loosely on the Eden hole at St. Andrews, the original MacKenzie No. 5 design featured a green double the size of the 5,000-square-foot version the members had grown to know. MacKenzie's original sketch was also available, making it one of the better-documented greens on the course.

The first thing DeVries did before he started the renovation was mark where the restored green surface would be located. A local backhoe operator with a soft touch then removed 6 inches of the native soil where green was to be restored. DeVries made a few minor adjustments in the surface to accommodate lost pin placements due to modern green speeds.

Then Sexton and his crew installed drainage and added 6 inches of a special mix of native soil and sand created by Sexton and tested by Hummel & Co., a Trumansburg, N.Y.-based soil testing lab. Irrigation heads were then moved. (During later green renovations at the course, Sexton moved this step to the front because he discovered that renovation goes more smoothly when irrigation heads are moved first.)

After the greens mix was added, DeVries and the crew hand-raked the sur-

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face and tied in all contours as close to the original as possible before sod was laid.

The verdict

"After we had it done, we put out a questionnaire to the members," Nelson says. "Some were negative across the board, but over 80 percent were in favor of the work. Like any club, the older guys didn't like it because they preferred the course as it was, but most considered the work a huge success."

Three more green complexes were renovated successfully in 2000. The most ambitious work is taking place this year — five of the club's holes will play to temporary greens while Sexton, DeVries and the project crew repeat their tightly honed process.

Any complications associated with the renovations have been minor. Crews have been able to mow the newly sodded greens at normal height within three months.

Nelson points to Sexton's crew as being "absolutely vital" to any club undertaking work in-house. He also strongly recommends the pre-project town hall meetings held with DeVries in attendance, which give golfers the chance to pose questions and better understand why the work will improve the course.

The Meadow Club project is a classic but all-too-rare case of various parties setting aside their egos and working together for a common goal. That goal starts with a solid committee that puts an emphasis on research and communication. It also includes an architect who's willing to spend the time and energy to handle details and talk to members. Last but not least, there's an extremely organized superintendent who's able to keep golfers' needs in perspective while supervising many facets of the project.

The most admirable thing is that each component of the engine credits the other for success. Is it any wonder the work to date has been such a triumph? ■

Contributing editor Geoff Shackelford can be reached at geoffshackelford@aol.com.

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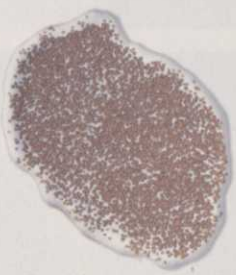

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CIRCLE NO. 130

Tips

Successful Fertigation

Know what components will create the most effective system for your course

BY FRANK H. ANDORKA JR., Managing Editor

Installing fertigation systems allow superintendents greater control over their fertility programs. For it to work properly, however, it's important to explore which components will fit your specific needs. Here are a few ideas from irrigation and fertigation specialists about what to consider.

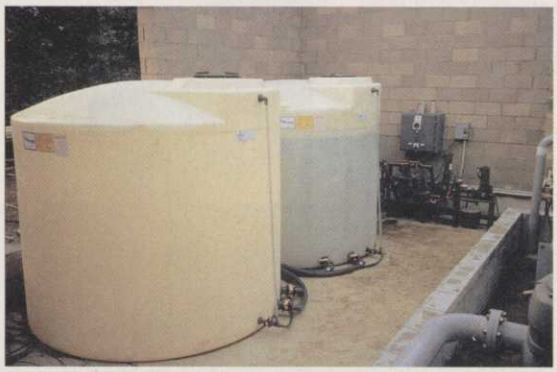
Have a plan

Fertigation is a complicated subject, and it's hard to explain to golfers why they should spend the money for a system, says John Dorer, an agronomist for Ecotronics, a Souderton, Pa.-based fertigation company.

"You have to explain that the changes they'll see in course conditioning will be subtle — but important — once the system is in place," Dorer says. "You have to agree on the goals before you embark on the project."

Next, you have to decide what parts of the course you want to fertigate, Dorer says. With proper planning, you can segregate the system so it only fertigates tees and greens, or you could go wall-to-wall if that will fit your agronomic program best.

If you decide to fertigate the entire course, you must ensure your irrigation system provides uniform coverage, says Brian Vinchesi, president of Pepperell, Mass.-based Irrigation Consulting. Ideally, the irrigation would be run off of a computerized control system, with the injection pump attached to the same program.



(Above) The fertigation system should be hooked up to the flow meter to ensure proper proportions. (Below) An ideal system should also include two 1,500-gallon storage tanks.

"It may require you to upgrade parts of your existing system," Vinchesi says. "If you're not providing uniform coverage, you're wasting your time."

Vinchesi also advises superintendents to check their original pump station building permits before expanding the buildings for fertigation upgrades. Each state has different rules regarding fertilizer use, so it behooves superintendents to check their compliance with laws, he says.

Now that you've done all the preparatory work, it's time to build your system.

It's all about the pump house

Ed Nash, president of Atlanta-based PlantStar Fertigation, says size matters when it comes to building an adequate pump house to accommodate a fertigation system. The bigger the pump house, the better, he says.

Nash recommends that newly built pump houses should be at least 24 feet wide and 24 feet long. If you're adding an addition on to an existing pump house, he recommends that it be at least 12 feet wide by 20 feet long. That allows for the installation of two 1,500-gallon fertilizer tanks and enough room for a superintendent to service the system.

"I've seen situations where the club hasn't allowed enough room for someone to fix a leak or service the motor," Nash says. "It's not something everyone considers, and that can cause you problems down the road."

Vinchesi says a fertigation system should connect to the flow meter to ensure the ratio of chemicals to water stays proportionate. If the water flow drops below a certain pressure, such an arrangement will shut off the injection system, preventing overfertilization.

Nash also recommends superintendents consider adding mixing tanks to their plans. He says many superintendents like to mix soluble fertilizers to create a formula to meet specific needs.

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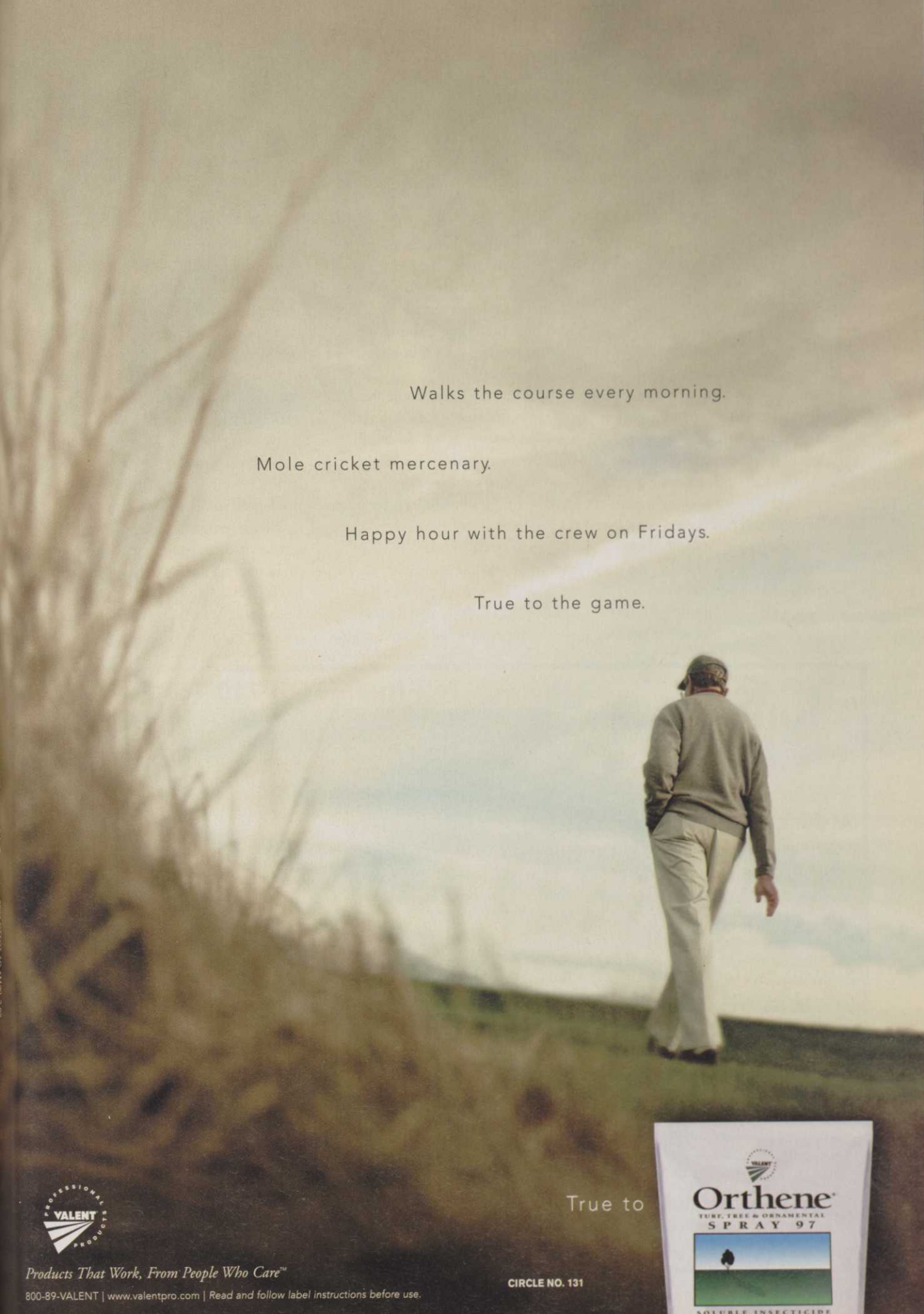
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"Most superintendents are alchemists at heart, and mixing tanks allows them to create their own concoctions," Nash says. "It indulges them in this pastime, and allows them to customize a 'home brew' fertilizer for their course."

Don't forget about safety

Jim Barrett, president of Roseland, N.J.-based Barrett Associates, an irrigation consulting firm, says once superintendents commit to fertigation systems, they must think about safety. Anytime you automate systems involving chemicals, you must plan for contingencies.

"This should be a central preoccupation for anyone installing a fertigation system," Barrett says. "It's the only responsible way to behave."

Barrett says all fertigation systems should have a vacuum breaker, which allows air into the system and aids drainage if a leak occurs. Barrett says superintendents should also install professionally manufactured backflow valves to prevent tank contamination.

"You need spend the money to purchase one of these," Barrett says. "I've seen some homemade ones that have been pretty scary. You can't take any chances in these environmentally sensitive times."

Nash says the pump house should have its containment floor sloped toward a sump, which will collect all spilled materials, which can be returned to a storage tank by a transfer pump.

"Even the best plans have problems from time to time," Nash says. "You have to be ready to deal with them so they don't cause a catastrophe."

Barrett says the containment area should hold 125 percent of the combined capacity for fertilizer storage tanks.

Nash says superintendents should also purchase filter on transfer pumps to eliminate impurities in the recycled product, he adds. Barrett adds that an ideal fertigation system also includes containment walls around the pump house in case chemicals leak.

Before you finalize your fertigation system, Nash recommends superintendents check out their suppliers. Make sure they can supply you with chemicals or service on your schedule instead of when it's convenient for them. If you follow these steps, you should have a fertigation system that will meet your needs well into the future.

"With fertigation, you can deliver nutrients to your turf when you want to, in the quantities you want to, without spending extra money on labor," Nash says. "It frees up superintendents to do other jobs on the course." ■