Riviera's former superintendent Paul Latshaw Sr. (right) battled undernourished greens before the 1998 U.S. Senior Open.

Real-Life Solutions
Riviera CC, Pacific Palisades, Calif.

High-Traffic Headaches

A superintendent employed biological products to increase turf strength on greens so they could endure an increase in players.

BY FRANK H. ANDORKA JR., ASSOCIATE EDITOR

Paul Ramina surveyed the greens at Riviera CC when he became superintendent there in July 1998 and recognized quickly that challenges lay ahead.

George C. Thomas designed the championship course, located in Pacific Palisades, Calif., in 1927, and insisted on including his signature small greens in the project. Over the years, rounds slowly increased as Riviera's stature grew. An aggressive membership drive in the 1980s expanded the number of players at the course, and rounds nearly doubled from 40,000 in the late '70s rounds to 70,000 last year. As a result, the greens took a beating.

But Riviera couldn't enlarge the putting surfaces to accommodate more traffic without destroying the course's character. By the time Ramina arrived, the greens needed help.

The problem
Riviera's greens suffered from poor nutrient retention in the soil, resulting in thin, weak turf. Ramina decided to recondition the soil to increase turf strength, and he wanted a one-stop shop where he could purchase products to help him do that. "When you're in competition to host major tournaments the way this course is, you must have greens that meet high expectations," he says.

"Soil balance is vital to keeping turf healthy, but you have to figure out how to balance it on a micronutrient level," Ramina says. "It's not enough just to throw out a number of products and hope that some of them help. You have to tailor your program to fit the needs of your course."

At the Links at Challedon in Mount Airy, Md., where Ramina was employed before he came to Riviera, he worked with Floratine, a Collierville, Tenn.-based turf products company. Floratine provides biological products including soil amendments, fertilizers and soil oxygenators. Ramina was im-

Problem
Nearly 70,000 annual rounds of golf ravaged Riviera CC's small greens, stressing out the turf and creating compaction.

Solution
A combination of products, along with an aggressive aeration schedule, improved the greens dramatically.
we're all striving for, there's no should be involved in the pressed with the company and its products, and he was convinced that Floratine should be involved in the Riviera green restoration.

So he called Bill Byrnes, Floratine's president, and asked him to assess Riviera's greens to see if his products could help. Byrnes says targeted treatment of damaged turf requires more than just an over-the-phone description of the problem.

"Prescription without diagnosis is malpractice, and that applies to turf companies as well as to doctors," Byrnes says. "Despite what we're all striving for, there's no silver bullet. You have to get down on the ground to find out precisely what the grass needs before you start suggesting chemical solutions.

Ramina took soil and plant-tissue samples and had them analyzed by an independent laboratory. The results weren't good. "A residual thatch layer prevented nutrients from getting through to the soil, and the greens weren't feeding as well as they needed," Byrnes says. "Good grass was hard to grow under those conditions."

The test results showed that the turf lacked sufficient potassium, phosphorus and nitrogen and calcium.

The solution

Byrne's first recommendation was to use a foliar bios-stimulant called Astron, which provides grass with immediate nutritional needs. It also contains slow-release nutrients that penetrate plant leaves to feed them over a longer period of time.

"We're looking for long-term solutions, not just quick fixes," Byrnes says. "You want to feed the turf immediately, but you also want to provide for it over time."

Ramina also used Floratine's Knife product, a fortified iron supplement for quick, long-lasting greening of all grasses; and CalpHlex, a calcium supplement for nutrient balancing, salt reduction and pH management.

Ramina saw improvement within 24 hours of the first foliar application and soil conditions improved almost immediately.

Riviera's maintenance crew also began an aggressive aeration program that broke up the thatch layer. Ramina also noticed the turf recovered from injury more quickly.

But the true test of the program was how the pros reacted to the greens.

"The players had nothing but good things to say about the greens at the Nissan Open in February — a complete reversal since the 1995 PGA Championship, when everyone complained about the greens," Ramina says.

Ramina and Byrnes continue to work together to keep the greens in top condition.

"We know that not everyone has the budget that Paul (Ramina) has, so we're willing to work with all superintendents to find a plan that will fit within their budgets," Byrnes says.
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**Fungi stimulant**

**Plant Health Care** introduces Colonize, a vesicular-arbuscular mycorrhizal (VAM) fungi stimulant that improves root colonization in turf. Colonize contains an isoflavone derived from the roots of stressed clover plants. Studies show the isoflavone stimulates the growth of VAM fungi, which forms symbiotic relationships with endomycorrhizal grass species, such as bentgrass and bermudagrass.

*For more information, contact 800-421-9051, www.planthealthcare.com, or CIRCLE NO. 206*
Ken Ehlen was named director of golf for The CottonFields GC of Laveen, Ariz.

George Morgan, CGCS at Chartiers CC in Pittsburgh, received the Distinguished Service Award from the Pennsylvania Turfgrass Council. The award honors a lifetime of dedication to the advancement of the turfgrass industry in Pennsylvania.

Eric Thompson is the salesman of the year for Roberts Supply, an outdoor power equipment and parts distributor in Winter Park, Fla.

Rain Bird promoted Pat Loper to manager of central control for its golf division. Loper was previously central control brand manager for the company.

Matthew Wong joined e-Greenbiz.com's board of directors. e-Greenbiz.com also named its board of advisors: John Thompson, CEO of The Nurseries Co., Beltsville, Md.; Manfred Muecke, founder and vice president of research and development for Hortico, Purcellville, Va.; Charlie Pick, vice president of Garden-Ville, San Antonio; George Atkinson, director of marketing, Zelenka Nursery, Grand Haven, Mich.; John O'Malley, president, Legacy Landscaping, Houston; Andy Crawford, sales manager of Daylity Nursery, Rock Island, Tenn.; and Gretchen Marx, vice president of K-Rain Manufacturing of Riviera Beach, Fla.

Bernhard Leinauer joined the New Mexico State University Cooperative Extension Service as an assistant professor and turfgrass specialist. He was formerly a research associate at Michigan State University.

Darwin N. Davis was named chairman of the board of the National Minority Golf Foundation, replacing Joe Louis Barrow, who resigned to become national director of The First Tee. Davis is a former senior vice president of The Equitable Life/AXA Co.

Van Waters & Rogers named Ted Worster to the new position of product/project manager.

The Musser International Turfgrass Foundation presented its 2000 Award of Excellence to Matthew J. Fagerness, a Ph.D. candidate at North Carolina State University. Fagerness will receive $15,000 to continue his education.

ServScape named Ralph K. Dain Jr. as general superintendent to manage the company's golf course clients.

Edward Beidel joined the golf course architecture firm of Daft-McCune-Walker in Towson, Md.

Jerry Helm joined Elwood, Ill.-based Tyler Enterprises as a sales representative. John Gronnett assumes responsibility as a driver supporting product delivery for Tyler golf course customers in Ohio and northern Kentucky. Mark Gross is warehouseman for the acquired distribution facility in Cincinnati.

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Out of Bounds

SOMETHING COMPLETELY DIFFERENT

**horseshoes**

**IF YOU BUILD A PIT, YOU COULD GET HOOKED ON THIS GAME THAT'S PERFECT TO PLAY ON A LAZY SUMMER AFTERNOON**

**By Mark Luce**

In my never-ending quest to perfect the art of leisure, I surveyed my backyard and came up with two options — build a basketball court or a horseshoe pit. I opted for the latter because a horseshoe pit was a better fit for my humble little acre and my increasingly achy bones. Besides, a basketball court cost about $1,500 to build.

Roman soldiers invented horseshoes, which is popular throughout the world. The game became big in America, thanks to the British, around Revolutionary War time.

In 1909, in the tiny hamlet of Bronson, Kan., the first world horseshoe tournament was held. In 1914, the Grand League of the American Horseshoe Pitchers was formed in Kansas City, Mo. The league members standardized the rules, specifications and procedures of the game that's played by millions but perfected by few.

If you want to learn horseshoes, you can't just pound a couple of stakes into the ground and start playing. You must do a little work. However, using the following steps, you can have a horseshoe pit with a day's work and a few trips to the hardware store.

**What you'll need** — First, check the local hardware store for a decent set of horseshoes and stakes. This will cost between $30 and $40.

You'll need Sakcrete, a $4 to $6 50-pound bag of just-add-water cement mixture to set the stakes. Also required is about 400 pounds of sand, which can be bought in bulk and hauled in a truck or sold in 50-pound bags for about $3 apiece. True sportsmen may opt for synthetic or blue clay, but it takes more maintenance than sand.

If you don't have a shovel or a tape measure, you'll need those, too.

**Building the court** — The official dimensions of a horseshoe court are 50 feet by 6 feet. You can alter the length if your yard isn't big enough.

Measure the court and place a marker in each of the corners so you can see the dimensions. Then measure 3 feet in from the center of each end and mark a spot where the stakes go.

The size of the pit is 4 feet deep and 3 feet wide. Using the position of the stake as a guide, measure off the area of both pits. That means 1.5 feet toward each side, and 2 feet to the front and back.

**Time for the elbow grease** — Start digging and try to get the pit as level as possible. In the pit's center, dig a pyramid-shaped hole that's 6 inches deep. The stakes, which are 27 inches tall, should project 21 inches. Mix the Sakcrete in a 5-gallon container, set the stakes in the ground at a 12-degree angle and pour the cement. Let dry overnight.

**Almost home** — The next day, check to make sure the stakes are secure. Then spread a thick layer of sand over the pit area.

Technically, you're finished and ready to play. However, there are still some things you can do to make the pit more attractive, such as a brick outline or railroad ties behind the pit.

Then it's time to play. The scoring is simple — a ringer scores three points, and closest to the stake (within 6 inches) scores one. Officially, you should play to 40. But it may be better to play to 15 when first learning the game — unless you're patient.

Horseshoes is not a fast game, nor is it meant to be. It's perfect to play before and after a barbecue or on a lazy summer afternoon. Remember to take your time, enjoy the outdoors and, as in all things leisurely, a little gamesmanship can go a long way, especially in a tight game.

Mark Luce lives, writes and pitches horseshoes in Lawrence, Kan. You can e-mail him at mluce@earthlink.net.
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