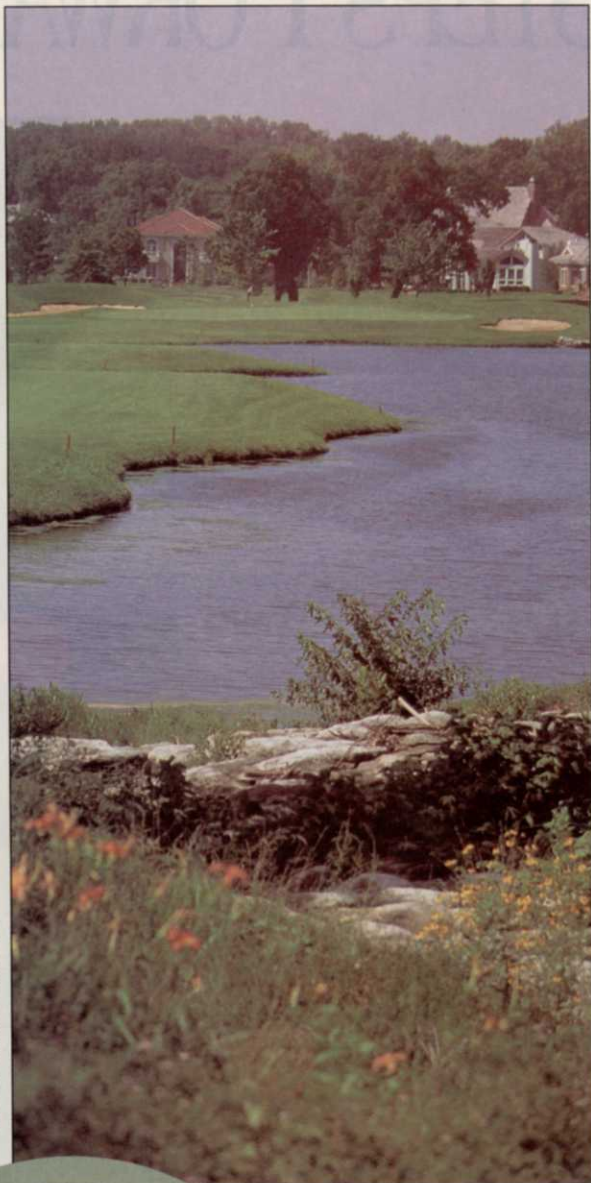


By LESLEE JAQUETTE

Superintendent Ken Smith rebuilds bunkers, maintains a large fleet of equipment and reclaims rough areas into wildflower beds.



PHOTOS BY LESLEE JAQUETTE

Superintendent Ken Smith of Highland Springs CC, Springfield, Mo., has “gone on the offensive”, to solve certain maintenance challenges. Solutions include a safely modified weedeater, new bunker sand and wildflower reclamation.

Designed by Gary Lynn with Robert Trent Jones, Jr., the 18-hole private course capitalizes on the Ozarks’ rolling terrain, limestone outcroppings and deep-rooted deciduous canopy. It is a key part of a 300-lot residential community that also demands substantial landscape attention.

Superintendent Ken Smith explains that the 200-acre course was opened after tremendous earth moving work in the fall of 1989. Smith hails from the Fort Dodge CC in Iowa, and admits he was sent into “culture shock” by lack of topsoil at the southwest Missouri course. Eventually, 80 percent of the topsoil at Highland Springs had to be trucked in from river beds.

Deep-lipped bunkers

Once the dirt was in place, the designers engineered the Trent Jones’ bunkers that tend to face the golfer head on. According to Smith, all 77 bunkers were built with lips that were too deep,

Ozark¹ medley

which maintenance crews have worked to correct over the years. To do this they add clay to soften the slopes and allow for a two- to three-inch sand fill contour. Currently, the bunkers need eight to 12-inches of sand to fill the void.

The silica sand looks gorgeous, but it doesn't work well, due to the shape of the sand particles. The sand does not compact much upon ball impact, says Smith.

"The result is lots of 'fried egg' lies. The ball goes 'splat!' and is buried in the sand."

The sand also tends to move downhill. Heavy rains carry the sand into drains, another maintenance headache. Even though Smith's summer crew of 20 has used a Sandpro to push the sand back up, it still gets contaminated by the rocks and soil.

A different sand

Smith's solution is to remove the old sand and start over. He estimates it will take several winters to replace the sand. This time he's using a sand with a more angular particle size. It's mined from river beds near Kansas City.



Smith's hydraulic weedeater attachment eliminates trouble when mowing around lake banks and bunkers.

His crew is also rebuilding the perimeters, checking drainage tile, ripping out old lines and using pea rock to level tiles. By the end of this winter Smith plans to rebuild half of the bunkers.

Nike Tour promoters call Highland Springs the "ultimate obstacle course," with its water and rock hazards and its six-inch roughs.

Some disease problems

Fairways and tees are zoysiagrass. Roughs are a combination of turf-type tall fescue and Kentucky bluegrass. Smith says this combination works well in the transition zone because when the bluegrass struggles with the Missouri heat, the fescue balances it out.

The fescue is prone to brown patch, however. To control the problem, Smith's crew sprays Cleary's 3336 on all green and fairway surrounds twice each summer. Typically, he sprays four weeks apart, as disease progression indicates.

Smith's most difficult disease problem has been anthracnose basil rot. The disease enters through turfgrass abrasions during the summer months.

Speed up, slow down

Not only does his crew maintain the course equipment, but it maintains a fleet of equipment used for real estate development. This includes a street sweeper and snow removal vehicle.

"The problem is the unexpected; and that people are in too much of a hurry," says Smith. "Still, it's a balancing act because we sometimes push the crew. Other times we say, 'slow the machines down.'"

To better manage mowing the severe angles caused by sand bunkers and lake perimeters, Smith got creative. He modified a walk-behind rotary mower with a hydraulic weedeater, and mounted dual tires to keep the machine from rutting. Now the machine mows the hard-to-get 18-inch strip between a bunker and the mower. One man can mow three acres of difficult



By winter's end, Smith and crew will have rebuilt many Highland Springs bunkers.

terrain, where previously three workers mowed, trimmed and raked.

Blooming beauties

Smith is changing some of Highland's turf acres into wildflowers. So far, he and Ornamentals Superintendent Linda Lindsey and her staff of two have successfully used wildflowers to beautify the numerous limestone outcroppings and ravines. People appreciate the flowers here.

Smith and Lindsey would like to reclaim 10 percent of the course for wildflowers, and to establish native grasses like big bluestem, little bluestem and love grass. This would also reduce course maintenance.

But, given the upscale, manicured nature of the development, it would be inappropriate to plant the long grasses adjacent to houses that line the course.

As members and owners become more aware of the issues, the staff hopes to eliminate difficult mowing areas and balance the intensive maintenance with plants that are easier to maintain.