



trate that hard layer underneath."

Decker uses lots of organic soil amendments when he works with sod; these include peat moss and leaf compost, or porous ceramics such as Isolite and Profile, to help with water retention and to help loosen up the soil.

"If it's a real hard, wet, clay type of material, I'll put in sands, I'll put in organics, something to kind of create a little better soil condition. If I'm already dealing with a good organic soil, I may not add anything but some starter fertilizers down in that root-zone, so that as that root goes down in, it has something to feed off of, instead of a top application. I like it already in the soil, where the root has the ability to work to it. You lose less of the material.

"I've had good results with Isolite and Profile in some greens and tee areas. I also used Isolite on one tee surface, for better water retention, and blended some organics into that.

"We worked all these products through six inches, rolled it, packed it and loosened the top surface back up again to lay sod on it."

Arrowhead's tees are small, which has usually



been compatible with the number of rounds played a season, which Decker estimates to be 25,000.

"But with the membership increase, I do have more divot repair to do on par-3 tees. More play means more divots and divot repair." Repair boxes filled with a seed mix have been placed on par three tees.

#### Weather zigs

The less-than-predictable weather patterns continued in parts of the Midwest this spring and summer, and Decker had to do his best to keep his head above water as far as scheduling and effective maintenance.

"It has not been a typical summer. Spring was wet. Normally, by mid-May, we're on a routing maintenance schedule. This year it was mid-June.

"We had a period from early April through mid-June when there was virtually never a rough cut where there wasn't clumping grass. You'd mow for three days and it would rain for four, so you were starting right back over again with that spring clean-up and spring preparation. We went from that right into 85 degrees and sunny, and now, we're cool again."

#### Heat stress solutions

When it comes to heat stress, Decker, as all supers do, tries to prevent first, then cure.

"Preventively, we try to prepare the turf for the heat stress. In the spring, we try to establish deep rooting through irrigation patterns of long, deep watering cycles.

"As far as curatives for heat stress, we try syringing,

One of the best things about the staff, says Decker, is that no one takes a 'that's not my job' attitude.

At left, one of the many ways the Arrowhead crew beautifies tee areas.

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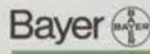


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Circle No. 109 on Reader Inquiry Card



'We try to keep our crew from being totally over-run with the projects,' says Decker, who installed this ornamental pond (right) with the help of the club professional, Dave Cavalier.

hand watering, the typical things. We were out yesterday with the wetting agent tablets, and some hand watering of the localized dry spots.

"I believe in holding back on nitrogen levels. I don't push the fertilizer regimes. This helps keep the turf real lush during heat times."

Decker does not aerify greens in spring, since play is light.

"We do fall aerification and sand topdressing. That helps wherever we have compaction.

"We try to be a little more conservative with our water because with the type of system we have, we can't go out and randomly throw water around. And in some aspects that may have helped us overtime, because we've tended to take those weaker turf strains out; because of the stress, they go under and it's kind of been a 'survival of the hardiest.'"



#### Bluegrass/ryegrass

Memories of the Midwest heat wave of 1995 linger, and Decker is careful when choosing turfgrass varieties.

"We shy away from ryegrasses when we do any overseeding on fairways for the simple fact that we are prone to pythium here and the ryes have a tendency to be a little more susceptible to pythium," Decker observes. "So we go with a two- or three-way blend.

Arrowhead's greens are cut at 1/8-inch, six days a week, with walk-behind mowers. □



## No more wash-outs

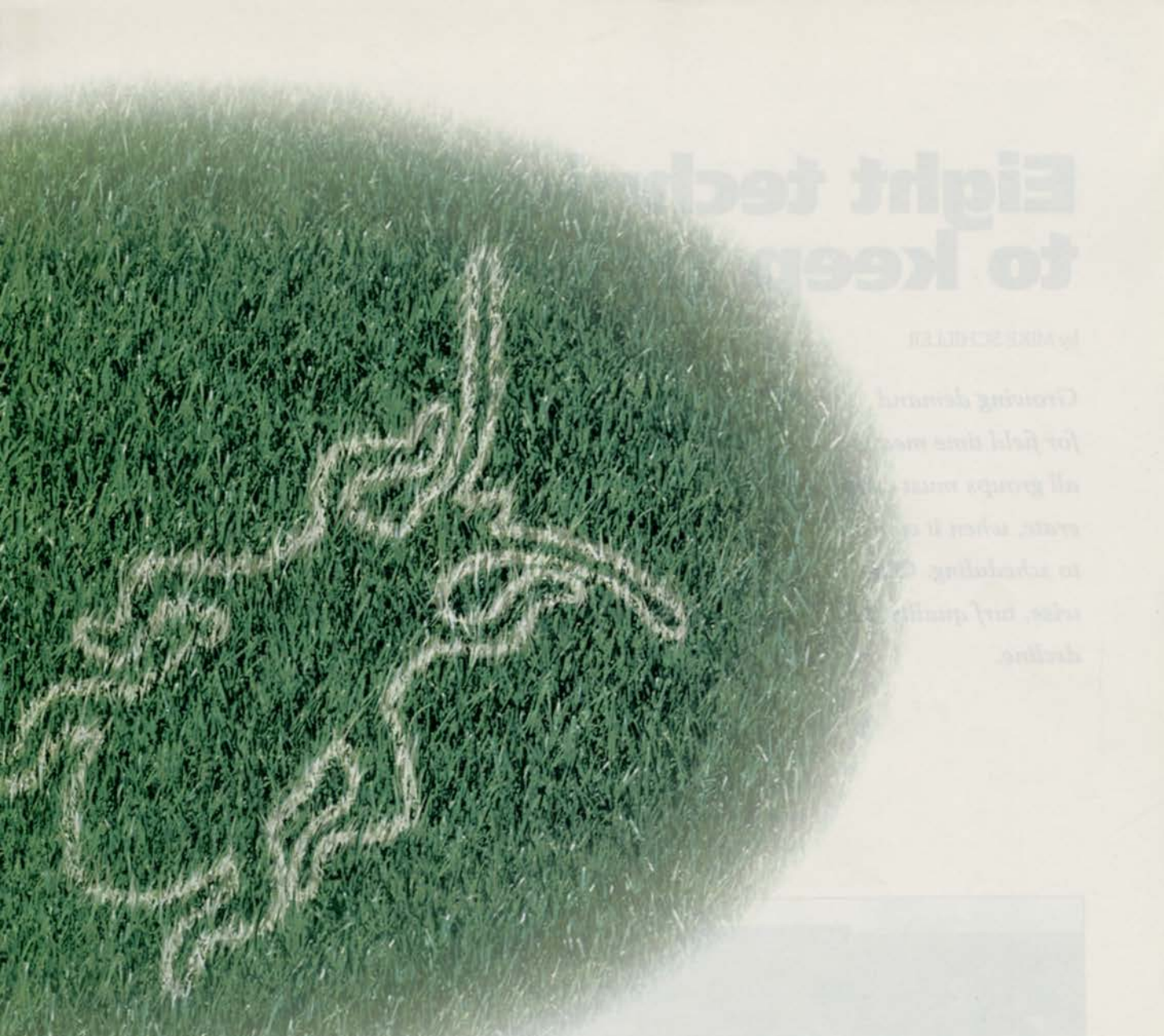
One low-lying section of Arrowhead Country Club was constantly being flooded by heavy rain.

"We had problems with water coming down through here and eroding out. It was getting to be a real problem," remembers Decker. "We would pick up water from the housing development at a higher elevation. Everything from seven or eight acres funneled right into this spot of runoff. We had caverns form in here from the water running through."

Solution: "We came in with the concept of a dry stream bank. We cut it out, shaped it a little bit, laid a plastic layer down and then put cobblestone in on top of it.

To beautify the area, a perennial wildflower mix was sown in. "We're going to mix bulbs in with that and some of the lilies and hostas," explains Decker. "As you look up this hole next year, there's going to be a mass of wildflowers up behind it.

"Last Sunday we picked up an inch of rain in 15 minutes and that spot had no erosion."



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Circle No. 113 on Reader Inquiry Card

# Eight techniques to keep fields 'in play'

by MIKE SCHILLER

*Growing demand for field time means all groups must cooperate, when it comes to scheduling. Otherwise, turf quality will decline.*

If athletic fields had feelings, they'd be bursting with pride at their own popularity. Most days, it seems that everyone wants them.

Sports turf managers from elementary schools through universities, throughout park and recreation departments, at private facilities and at the professional level face the challenge of maintaining quality playing surfaces despite ever-escalating field use schedules. Here are some techniques to keep fields in play and extend the season:

## 1) Cooperate

Get everyone on the same page.

Administrators, athletic directors, facility owners, coaches, trainers, players, parents and support groups, be they fans or booster clubs—all want the best possible playing conditions. Sports turf managers need to communicate what is needed to provide those conditions.

Ask for funds, supplies and equipment, and explain why they're necessary and what they'll do for the program.

Work with field user groups

to establish guidelines for field use and non-use. Listen to their needs and develop suitable alternatives whenever possible, but keep player safety the top priority.

## 2) Rotate

Assess the "logic" of current field use schedules.

Work with coaches to shift the positions of the various repetitive player drills performed on football and soccer practice fields. Traditionally, each drill takes place on the same portion of the field each day. Why? It's habit. Soccer



The new natural grass field at Iowa State University—used for soccer and football—replaced a field of artificial turf.


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*Geoffrey R. Blind  
Golf Course Superintendent  
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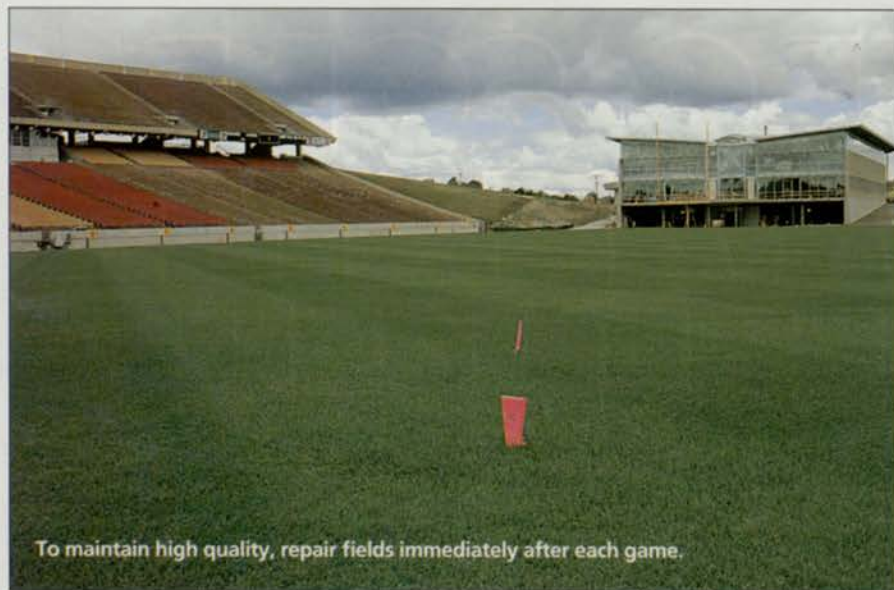
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To maintain high quality, repair fields immediately after each game.

goals can be set up along the sidelines, or even on the turf surrounding the field for practice. Only the football kickers "need" a specific spot, and they can even be moved to another field if necessary.

Shift the fields. If space allows, line out two practice fields side by side and parallel to the existing field. Or line the practice fields in the same direction as the existing field, but moved 10 to 20 feet to the left or right.

Save the sidelines. Move players' benches along the sidelines of practice fields for football and soccer from one end of the field to the other, and to the middle, several times during the week to spread the wear and compaction. If possible, tarp the sidelines area for games.

Many parks and small school game fields have movable bleachers on only one side of the field. If space allows, move these to the other side of the field occasionally.

Does the band really need to practice on the game field more than once a week, under the lights? Alleviate wear and compaction by moving daily practices to a lined-out football field grid on a section of a parking lot, lawn, or the outfield portion of the baseball field. Move the grids on turfed areas periodically to avoid damage.

### 3) Incorporate

Despite precautions, field damage will occur. Repair it quickly.

Schedule crews or volunteers to walk the field immediately following football or

soccer games. Equip each person with a pail filled with pre-germinated seed in your standard mix and a small scoop or trowel. Have them place a bit of the mix in each divot hole and reset the divots, stepping down on them gently to anchor them in place. Tackle the larger problem areas yourself, using the same basic procedures. Irrigate the field once the repair task is completed.

### 4) Correct

Keep compaction under control. Even if suitable pull-behind units are readily available, use a small walk-behind core aerator as often as practical in those heavy use spots between the hash marks and along the goal line of football fields, within the goal mouth and center circle of soccer fields, and along the sidelines of both. Generally, mowing action is sufficient to break up the cores.

Correct small depressed areas and high spots before the next practice or play session. Existing sod can be "lifted" with a shovel or pitchfork, keeping at least one side still attached. The field media below can be either filled in and tamped properly, or shaved away with a sharp spade. Check to assure the soil base is even with the surrounding soil surface and level before easing the sod back into place. Irrigate as necessary to assist re-rooting of the sod "chunk."

### 5) Compensate

Spread grass seed, slit seed or drill seed frequently during the playing season. Seed in place will germinate when conditions are right to fill in bare spots and thicken the turf. If budgets won't support full-field seeding, concentrate on the high-use spots. Though you'll lose some seed, positive results justify the extra cost.

Supplement regular fertilization programs with special nutrient "packages" tailored to the specific needs of heavy-use fields. Keep potash levels high enough to help turf handle the stress.

### 6) Protect

Consider tarping to extend the fall playing season as well as to encourage early green-up in the spring. Tarps also can help maintain field playability during rainy seasons and in snowy northern climates. Talk with other sports turf managers in situations similar to your own to compare the initial tarp cost with savings in maintenance repair costs to determine the practicality of tarping for your key game fields.

### 7) Investigate

Check out new turfgrass varieties. Compare performance of new varieties to your existing turf. It's usually safest to test a new combination of grasses on a practice field under your use schedules and maintenance program for a year before making a switch on the game field. If the game field is enclosed or partially enclosed by bleachers or within a stadium, be sure to consider effects of shaded areas and differences in wind patterns.



Fields wear out quickly when there is no balance between play and maintenance.



## B) Re-evaluate

Once the fall-winter playing season wraps up, do as much pre-spring preparation as possible. In northern regions, dormant seeding and fertilization covered with a light layer of topdressing can produce superior turf in the spring, especially when wet spring weather keeps crews off the fields.

You may not be able to incorporate all of these suggestions into your program. But if one or two ideas fit into your budget and time allotments, they can help improve your fields' quality—and the players will appreciate it. □

—Mike Schiller is superintendent of parks for the Rolling Meadows (Ill.) Park District and president of the national Sports Turf Managers Association. Questions about the STMA and its activities can be directed by phoning the national office at: (800) 323-3875.

## Shaping up while waiting for rain

Mike Schiller just passed the half-year mark as superintendent of parks for Rolling Meadows, Ill., so he's still getting to know his newest turf. Previously, he was assistant superintendent of the Schaumburg, Ill., park district.

"It takes about a year before you figure out the operation," admits Schiller, who has a big project on his hands with a newly purchased swimming/tennis complex.

"We're making repairs," says Schiller. "It was a private club, now it's a public facility. We've divided two of the tennis courts into basketball courts and a rollerblade rink. The trees had been let go, so we've been pruning, slowly but surely getting it in shape."

The spring and summer weather in northern Illinois has not been friendly to turf and ornamentals.

"This summer has been weird, weather-wise," says Schiller. "It was so wet in spring, then from June on, we had negligible rain. We're seeing a lot of stress. The trees started dropping leaves 30-50 days ago. We're lucky if we had an inch of precipitation for September."

Fortunately, the district's three major football/soccer fields are well-irrigated. The drier fields, however, haven't gotten much attention due to lack of rain.

"We couldn't fertilize in spring due to all the rain, and in summer, we couldn't fertilize anything that wasn't irrigated, because we wouldn't be able to wash the product into the soil."

Schiller manages 175 acres of parks and recreation property. □

—Terry McIver

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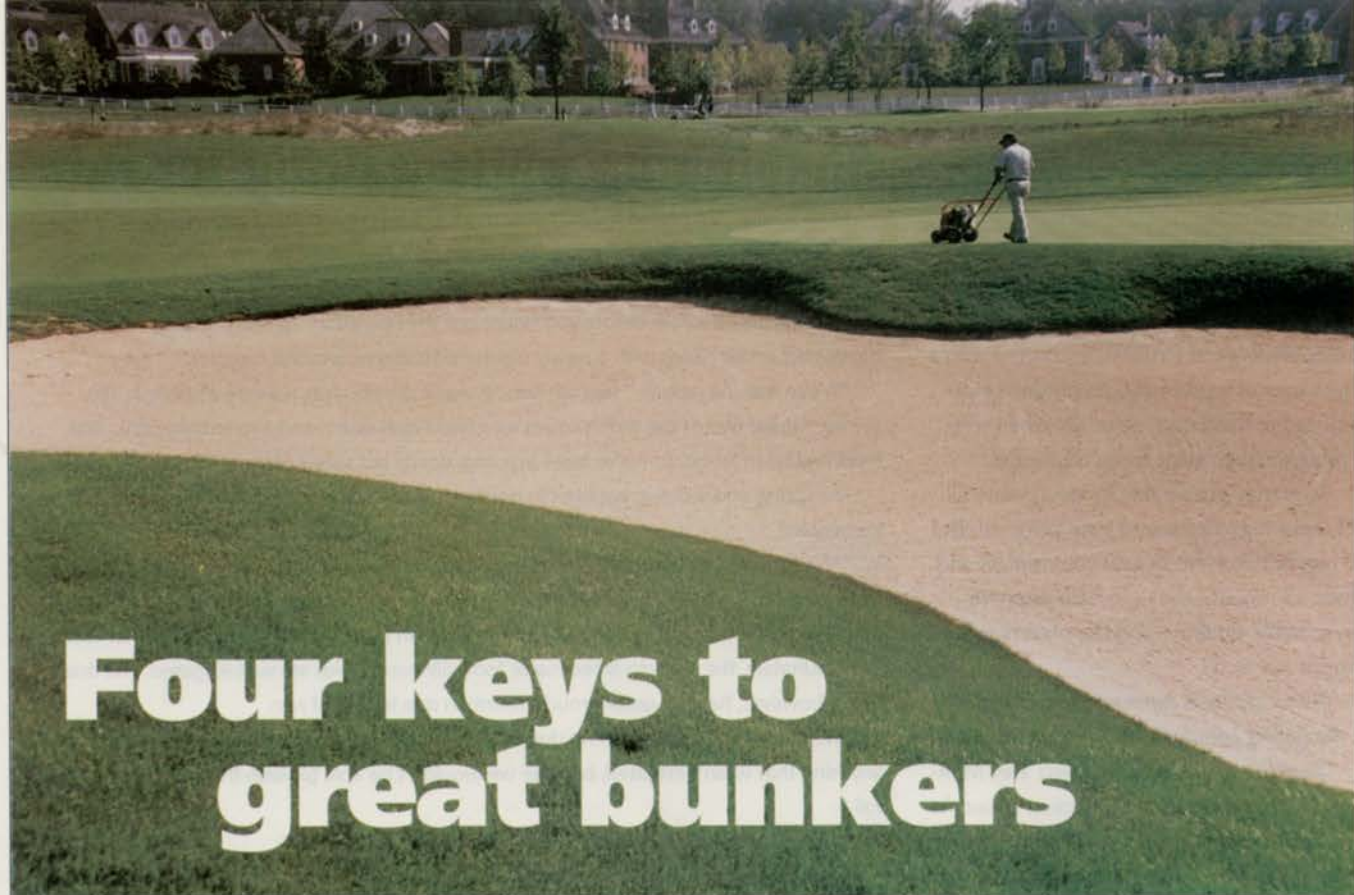


"Using all the Floratine products helps provide a better playing surface during heavy play in a very competitive market. Per"4"Max and NOW have been excellent tools and CalpHlex helped control high salts."

**Jim Doherty,**  
Director of Golf Maintenance  
The Links Group  
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# Four keys to great bunkers

*Extra care can distinguish your course from run-of-the-mill 18s, and attract new members.*

by JERRY ROCHE / Editor-in-Chief

**I**f having to maintain 110 sand bunkers for 27 golf holes doesn't make Tony Mancuso an expert, nothing does.

Mancuso, superintendent at the Jack Nicklaus-designed New Albany (Ohio) Country Club, is—as you might expect—a big fan of bunkers on a course.

"Our bunkers are typical of a Jack Nicklaus design," says Mancuso. "They provide some of the most dramatic features on a golf hole, and—after something like a torrential rain—provide some of the most depressing, disgusting, humbling feelings you as a superintendent can get."

He has four "keys to great bunkers," and they are:

- 1) construction issues
- 2) good drainage
- 3) the correct sand
- 4) good grooming

#### **Construction issues**

Mancuso believes that each bunker must be protected from rain and irrigation water runoff. "Sometimes we forget to berm around the bunkers and make the water go around them," he says.

Nicklaus-designed bunkers are 'flushed,' so golfers don't play blind.

It's also important that machine rakes have several access points around the bunker, to avoid wear areas—even if you have to "give up aesthetics." The golfers must also have several points from which to access the bunker.

The bunker should be designed so that it is "flushed," that is, so the golfer can see the sand in the bunker from his or her previous landing site. Mancuso also prefers bunkers with 1 to 1½ inches of sand on their sloping faces. "When a ball hits the side of a bunker, it shouldn't stay there," Mancuso notes. "The bunker's enough of a hazard as is."

#### **Good drainage**

It's a necessity to have an impermeable base in the bunker. Clay should be molded into the bottom of the bunker so water will go through the sand and get to the drains.

The base should also have a "fall" built into it so the water doesn't collect in one or two spots. And the bunker should also drain at its low point(s).

"Don't expect one strip drain to do the