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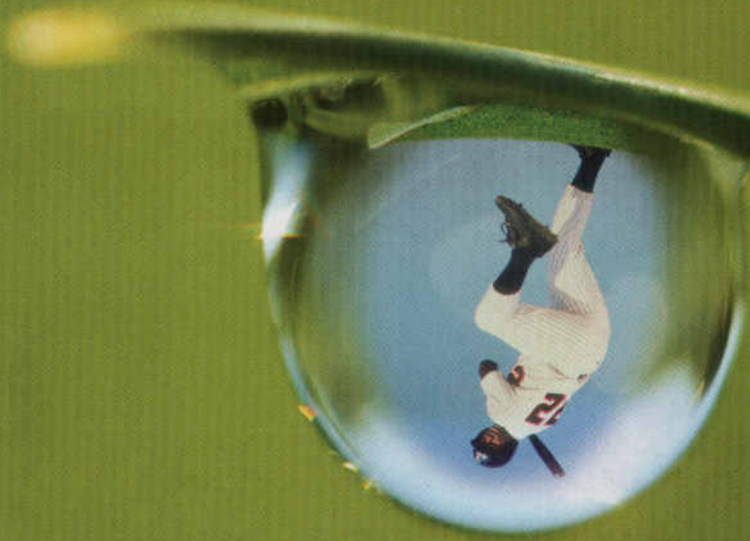
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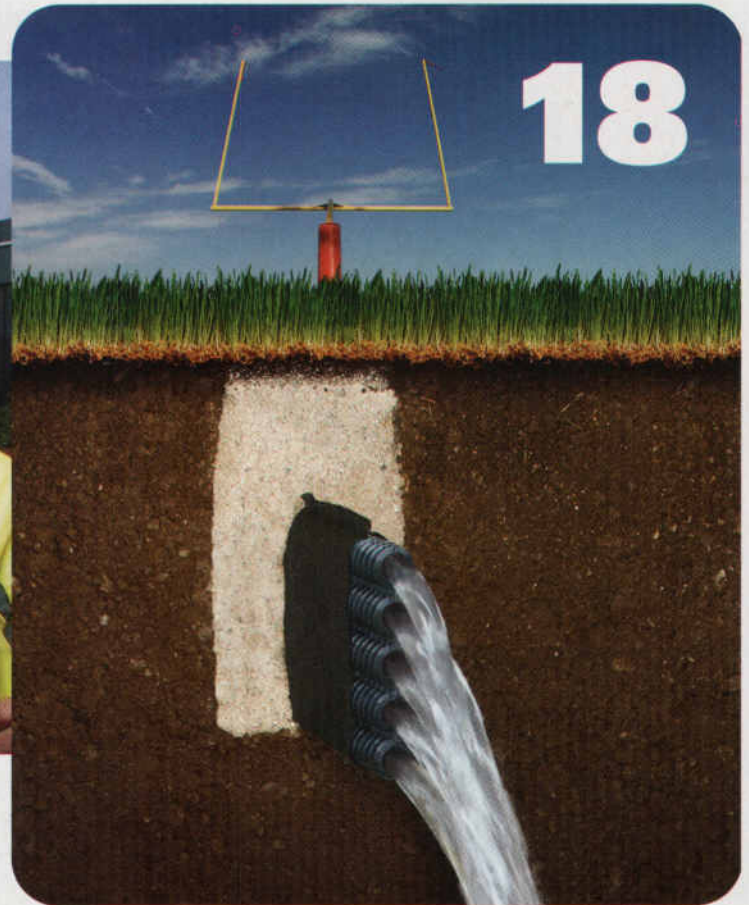


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On the cover: Kenny Hoffman, Eric Fasbender, CSFM, and Steve DiNatale of the University of Oregon act surprised that rain is falling in Oregon. See how they make bluegrass work in the region on page 42.



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## Maintained turfgrass reduces carbon footprint



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**E**arlier this year the Outdoor Power Equipment Institute (OPEI) asked an independent environmental and energy expert to conduct a study to assess the carbon intake and net carbon benefit of managed U.S. turfgrasses, including residential lawns, golf courses, parks, commercial landscaping, and greenbelts as well as athletic fields.

Dr. Ron Sahu's work showed that responsibly managed turfgrass stores significant amounts of carbon. In fact, he concluded that healthy turfgrass can capture up to four times more carbon from the air than is produced by the engines of today's mowers. The full report is available at [www.opei.org/carbonreport](http://www.opei.org/carbonreport).

The report assesses the carbon benefit of well-managed turfgrasses that are cut regularly and at the appropriate height, fed with nutrients, such as grass clippings, watered in a responsible way, and not disturbed at the rootzone. The largest amount of carbon intake occurs with the recycling of nitrogen contained in grass clippings; meaning, leave clippings on the ground to break down and recycle.

"We were unsure about the study's outcome, but existing data shows that a net carbon benefit exists from well-managed turfgrass, such as the typical American lawn," says Dr. Sahu. "When you take care of your lawn and promote a healthy root system, your lawn acts as a carbon sink, pulling and storing away carbon." Dr. Sahu has more than 17 years of experience in environmental, mechanical, and chemical engineering and teaches numerous courses in several Southern California universities.

"It turns out that you can reduce your carbon footprint right in your own backyard," says Kris Kiser, vice president, public affairs for OPEI. "Mowing grass and pruning shrubs and trees keeps plants in a growing state. This, in turn, ensures they are actively pulling carbon dioxide, a greenhouse gas, from the air."

### SportsTurf Archive to go Online

The search process for articles (current and previous) in this magazine will be much simpler and more comprehensive in the future. STMA's partner, Michigan State's TGIF, will be digitizing all past issues of the magazine and including them in the TGIF searchable database. STMA sports turf managers have complimentary access to TGIF through their membership in STMA. Collecting the copyright permissions is underway, and STMA hopes to have the digitization completed this fall.

### Thank you to all sponsors

Over the years this space has neglected to recognize some important people in the sports turf industry—the STMA Commercial member companies that sponsor many of the association's activities (not to mention advertising in this magazine!). Beyond specific, live events at the annual Conference, these sponsorships include the Field of the Year Award program and local chapter support. And in case you didn't know, a percentage of every dollar spent on advertising in this magazine goes directly to the STMA's coffers. Thank you!

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## Proud to be one of you

I've been humbled by my local chapter's efforts recently. On May 24 the small city of Parkersburg, IA (population 2,200) was essentially wiped off of the map by a category 5 tornado. This year has been an especially wicked weather year in the Midwest and beyond, so our state is not alone in dealing with destruction. Parkersburg has five alumni on NFL rosters right now and the players have solicited help to get the town back on its feet, with some good success.

Within 5 days of this storm, ISTMA leaders Joe Wagner and Dr. Dave Minner, with fellow member Pat Brown, approached the high school to offer ISTMA resources to help get the school back to some level of athletic normalcy. Commercial members from the chapter have been tremendous with their financial support and in-kind donations. Mowers and equipment were destroyed, but one call by Joe found an answer to that challenge. Help is coming to replace a scoreboard that was found in debris 45 miles away!

Coach Thomas, this high school's football coach honored by the NFL a few years ago, has publicly promised that there will be a home football schedule this fall. I guarantee that the chapter will help facilitate this. In true Sports Turf Manager optimism, when Joe heard the football season promise, he challenged the chapter to strive to have fields ready in Parkersburg for its summer softball and baseball seasons! Parkersburg may not have a school building for a few years, but the town will have something to cheer about very soon.

I can't begin to tell you how proud I am to be a part of this profession and this association. I know that the Colorado chapter has a similar effort for the town of Windsor, ravaged by a tornado only a week before the Iowa storm. Great work by all involved with CSTMA!

We've heard tremendous stories about member outreach during wildfires, hurricanes, flooding, storms, drought and other kinds of disasters. I only relate the Parkersburg story because it's happening 45 minutes from my home. Dave, Joe, Pat, our commercial members, and others with the ISTMA chapter, and the members of CSTMA—you're all heroes to the hundreds of kids and thousands of people who you impact. Public recognition of your amazing efforts is called for, but the most inspiring aspect of this association is that you'd have to stand in a long line of those who deserve the same type of recognition.

From my humble spot as author of a privileged magazine column, I can only say, 'Thank you.' What you did was leadership in its most profound sense. And, what you really gave was grace; grace to people you neither knew or had even thought about a few weeks ago. I've often said that our profession is made up of special people. Your job was important, but the volunteer work you did was very special. Thank you for representing the profession and your peers so passionately and honorably!



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# Crumb rubber

## *improves field wear tolerance*

By Matthew Goddard and Dr. John Sorochan

**A**thletic fields are exposed to some of the most intense traffic conditions of any turfgrass environment. In many cases, frequently used fields encounter injury beyond their ability to recover. In this situation, loss of an actively growing turfgrass surface can result in bare areas that affect the playability of the field.

Athletic fields require a turfgrass species that can withstand traffic and recuperate from wear.

In cool-season environments, Kentucky bluegrass (KBG) and perennial ryegrass are the species of choice. Conversely, bermudagrass is used extensively in warm-season environments. This presents a problem for turfgrass managers in the transition zone region of the country where no turfgrass species is ideally suited for growth. Regular use can take its toll on athletic fields. As traffic continues, wear patterns can develop, especially if the turfgrass cover has entered winter dormancy and no longer actively growing.

Crumb rubber is a product made from recycled automotive tires. Past studies have shown that topdressing crumb rubber over actively growing turfgrass can improve wear tolerance and prolong the playability of these fields. Our objectives were to determine the wear tolerance of four turfgrasses in the transition zone with and without crumb rubber topdressing under simulated athletic field conditions, and to determine if improved cool and warm-season turfgrass species can be used for transition zone athletic fields.

To test this, four different turfgrasses, Tifway hybrid bermudagrass, Riviera and Quickstand bermudagrasses, and Thermal Blue hybrid Kentucky bluegrass were evaluated with and without crumb rubber topdressing to determine the wear tolerance of each species under simulated athletic field traffic in the transition zone. In this area, bermudagrass is often used on athletic fields because of its wear tolerance and recuperative potential. These attributes make Tifway hybrid bermudagrass a good choice for athletic fields, but cost and cold tolerance limit its use in the transition zone. Riviera bermudagrass is an improved common bermudagrass cultivar that is similar to Tifway bermudagrass in density and overall quality. In addition, it has greater cold tolerance and can be established from seed, but wear tolerance and recuperative potential of Riviera had not been determined.

One of the issues concerning the use of bermudagrass in the northern parts of the transition zone is the loss of color and active growth as it enters winter dormancy in the fall. To account for this, sports turf managers often overseed to provide an actively growing turfgrass cover throughout the fall athletic season. Unfortunately, overseeding is not an option for all athletic fields due to budget limitations. As a result, these athletic fields are subjected to significant wear during periods when active growth does not occur.



Crumb rubber on crowns