

PUBLIC SAFETY ANGLE

Issues with synthetic turf and its impact on public health safety and welfare require more attention. As more synthetic turf installations occur each year to meet the growing demand of citizens, associated safety issues need to be addressed before making the purchase. The safety issues related to excessive surface temperatures on synthetic turf fields currently presents the greatest risk to public health and safety followed by contaminants which can become embedded in the infill and backing material.

Management of the synthetic turf surface and infill system should have a set of standards manufacturers and owners should implement and comply with or each installation to protect public safety. Municipalities or state agencies need to press for a published set of guidelines to protect the public and ensure adopted guidelines are met just as they do for other facilities such as public pools.

Studies show that a synthetic turf surface can reach temperatures as high as 89 degrees above ambient due to the heat gain capability of the synthetic turf pile and infill material. The highest recorded synthetic surface temperature to date was 196.4 degrees by Penn State University at the Center for Sports Surface Research. Currently the only effective option for mitigation of surface temperature is the application of water through an underground irrigation system or a traveling water wheel. Although studies show the effectiveness of surface irrigation will only reduce temperatures 14 degrees for a period of 2 hours the real benefit arises when surfaces temperatures

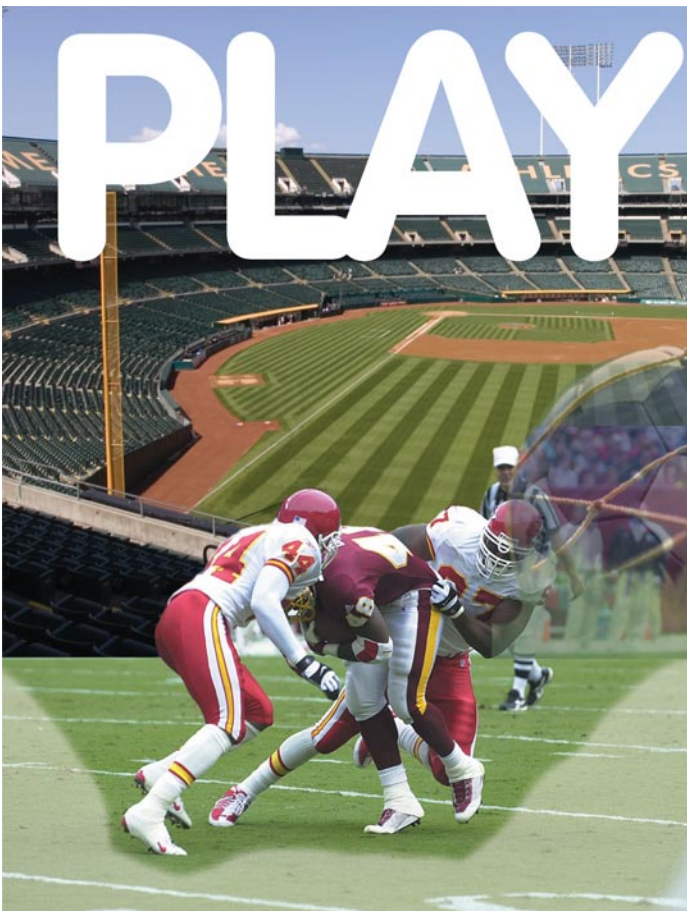
reach 120 degrees which at this point become a health risk to smaller children who are more susceptible to 2nd and 3rd degree burns at these temperatures. The ability to apply water to reduce temperatures at this point becomes a good management tool to protect the public.

Education of the public of what to look for when heat related illness occurs and published guidelines posted in areas easily seen by the public will provide some additional protection. Coaches and referees should also be instructed in the use of a hand held temperature gauge to monitor temperatures and thereby know when to either stop play until conditions improve and or activate an irrigation system to reduce surface temperatures.

Managers of outdoor synthetic fields should also require access to ample drinking water and cooling stations placed around the field to reduce heat stress during hot periods when the field is in use. The addition of shade structures around the perimeter of a field would greatly reduce surface temperatures in shaded areas.

There is no doubt synthetic turf fields provide the public with a quality playing surface which can withstand heavy daily use. There is also a need to address public health safety and welfare and establish a set of guidelines which will set the standard for safe use. ■

Wm. Richard Yates, ASLA, recently retired from Jeffrey L. Bruce & Company, a landscape architecture and planning firm.



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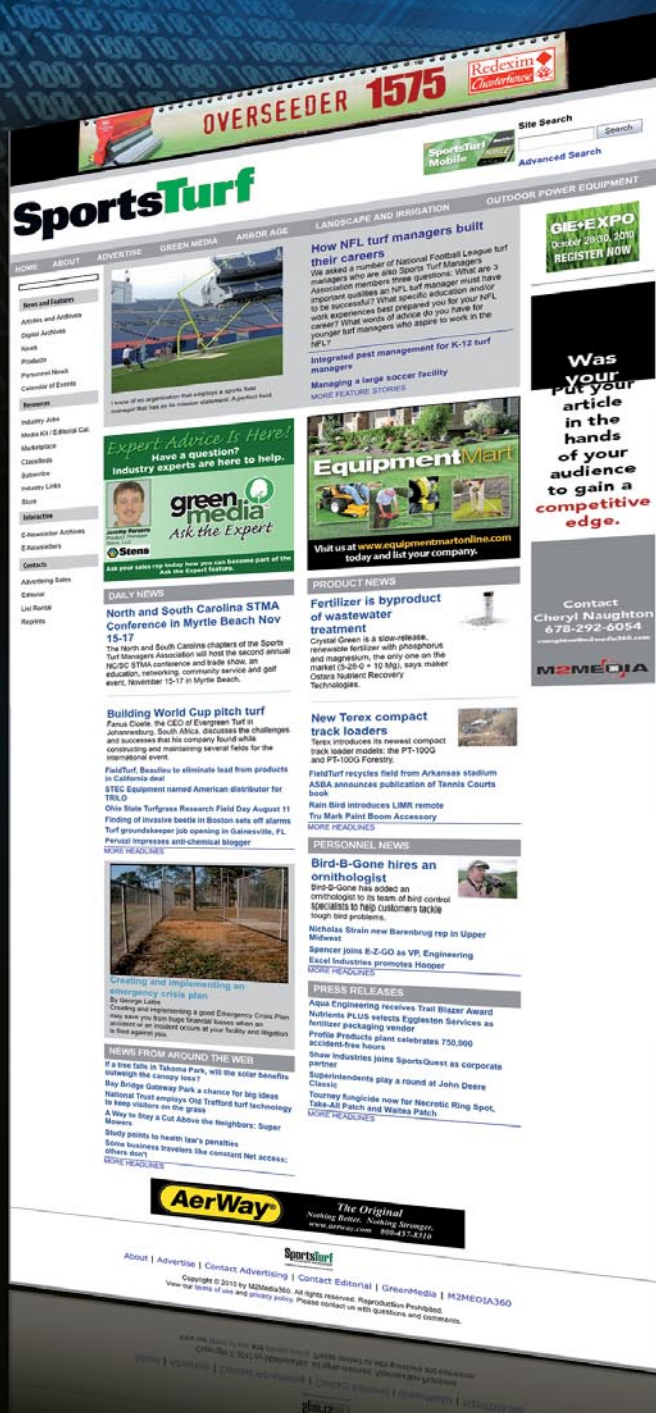
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TURF SEASON

Editor's note: Periodically we will ask turf managers how their "turf season" is going. Here are some responses from minor league baseball:

SHAWN MOORE, Albuquerque Isotopes

Our turf season has been very good considering it has been hotter than a \$2 pistol. We had 25 out of the 30 days in June over 90 degrees. Our *poa annua* has not responded well to this. Normally we will see summer kill in our *poa annua* around mid-August, but as of July 1 we already have several sections of *poa annua* that are gone. Growing Kentucky bluegrass in the high desert has always been tough, but along with the heat in June we have had only 2 inches of precipitation all year.

On the upside, our wear has been very minimal. We have only had to resod once

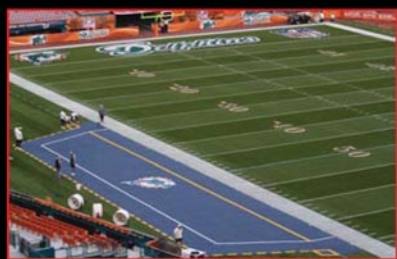
since college season ended. Our Kentucky bluegrass has responded very well to the fertilization program, which starts with a slow release nitrogen regiment. Through our suppliers, we have a schedule set with the timing of the release of nitrogen. Our nitrogen source will release .1 lbs. per week. From here we add quick release nitrogen as needed. We fertilize hard with potassium from spring till fall pushing for root development. In the past we have used phosphorus on a limited basis to try and prevent the spread of *poa annua*. Now that the amount of *poa annua* has increased so much we are increasing our P to develop healthier *poa annua*. Our spray program has been very limited this

We are hoping to finish the second half of the season strong and healthy. We are staying optimistic and learning new lessons everyday.

year due to the loss of our sprayer. We hope to re establish that program as soon as possible. We are dearly missing the micro-nutrients that we received from our spray program.

We are hoping to finish the second half of the season strong and healthy. We are staying optimistic and learning new lessons everyday.

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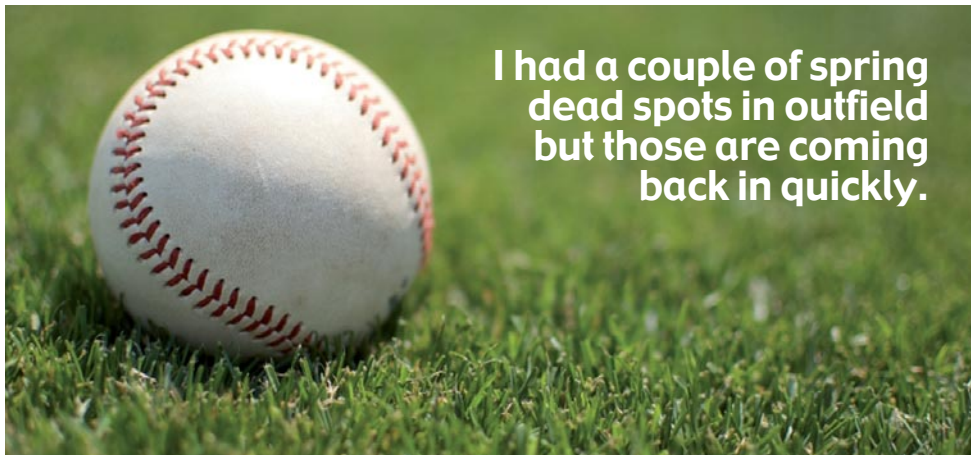
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I had a couple of spring dead spots in outfield but those are coming back in quickly.

ERIC BLANTON, **Reno Aces**

Nothing major to report. No problems that we have had. One thing that is going extremely well is that we have not had to do any resodding on field. The normal wear areas, pitchers mound front and back, shortstop and second base position

area, umpires spots, etc have held up extremely well.

BLAKE ANDERSON, **Greeneville Astros**

I am a groundskeeper that works for Southern Athletic Fields Inc. We are under contract with the Astros for the work I do

on the field. I have 419 bermuda and overseed with rye for the college baseball seasons. I started this job in December and this was the worst winter they have had here in east Tennessee in awhile. Temps were down in the teens for a long while and stayed cold until about April. Temps warmed up quickly and I think that is what helped my transition back to bermuda. I had a couple of spring dead spots in outfield but those are coming back in quickly. This is my first experience with bermuda and it is just what everyone has said about it and what I've read about. I really don't intend on doing anything special with the grass besides just spiking, ferting and a little PGR. I have just one problem and that is the visiting team walks across the grass to their dugout. I try to put down as many protectors as I can and ropes to keep those areas looking good. ■

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JOHN MASCARO'S PHOTO QUIZ

Answers from page 17

The soil exposed on this high school field when viewed from a distance appeared to be some sort of animal damage. Upon further inspection and the fact that most animals cannot spell, it was determined that the problem might have been caused by humans. As it turned out, the damage actually was a result of three high school students, two shovels and three six-packs of beer. These vandals got liquored up one night and decided that they would expend some of their energy digging up this football field. The culprits were subsequently arrested because of the fingerprints left behind on one of their cans of liquid inspiration. The areas were too badly torn up to have the divots reinserted so the areas had to be backfilled with soil and then re-seeded with a combination ryegrass/bluegrass blend and PennMulch. Care had to be taken to get the correct seed match so the areas blended into the surrounding turf as the other word spelled out on the field could not be published in this magazine.

Photo submitted by Bill McGeough, President of McGeough's Turf Management of Tiverton, RI and maintenance company for this field.

If you would like to submit a photograph for John Mascaro's Photo Quiz please send it to John Mascaro, 1471 Capital Circle NW, Ste # 13, Tallahassee, FL 32303 call (850) 580-4026 or email to john@turf-tec.com. If your photograph is selected, you will receive full credit. All photos submitted will become property of SportsTurf magazine and the Sports Turf Managers Association.

READY FOR AN ALL-STAR ASSAULT

Groundskeeper Barney Lopas uses less man hours on his crew than most major league grounds crews. To find out how Barney readies his field for the 2010 All-Star game assault using less labor, download the case study at:

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www.STECequipment.com



TurfEx ZTR thatch attachment

TurfEx introduces the new Thatch, Groom 'N' Sweep Package, an attachment system designed specially for zero-turn mowers that can be converted from a sweeper to a dethatcher without having to purchase additional equipment. Available in both 48- and 60-inch widths, the Package uses a universal mount that easily fits the form of most major manufacturers' zero-turn mowers. The attachment includes two rows of brush sections, which can be replaced with spring-mounted tines to turn the sweeper into a dethatcher in just a matter of minutes. To switch between the two, the operator simply removes a containment plate, and then slides the brush or tine sections in and out of the housing.

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Kubota enters compact track loader market

Kubota Tractor has introduced a compact track loader series, the 75-hp SVL75 and the 90-hp SVL90 models. The new loaders are created exclusively from Kubota engineered and manufactured components in a specific track loader design. Both models are powered by a four-cylinder, direct injection, turbo-charged Kubota diesel engine and are equipped with a rigid-mount undercarriage and a vertical lift for long reach and maximum lifting and dumping capabilities. A variety of performance-matched attachments are available for the SVL75 and SVL90, including several bucket options with teeth or straight edges, 4-in-1 buckets, pallet forks and more.

www.kubota.com



Aerate 36 to 60 inches with one machine

The Plugr VersaTow by SourceOne Outdoor Power Equipment is a pull-behind turf aerator that features 12-in. self-storing wings on each side of the 36-in. main frame, allowing operation at 36, 48, or 60-in. widths. The wings float independently for better results on uneven terrain. VersaTow is compatible with a Category 1 3-point hitch or a standard tow bar. You'll achieve approximately 6 x 7-in. core spacing up to 4 in. deep from 80 heat-treated 5/8-in. tubular tines.

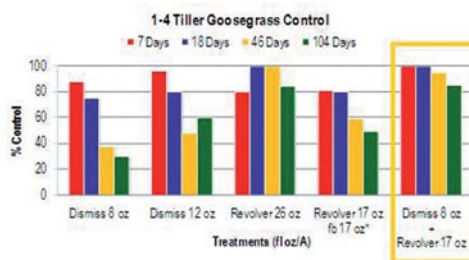
www.sourceonex.com/plugr

Tank-mix combo to control late goosegrass

Late-season goosegrass control can be effectively achieved with a tank mix of Dismiss and Revolver herbicides, recent research shows. The 2009 study tested several different tank-mix combinations to control goosegrass at the one- to four-tiller stage in warm-season turfgrass. A study conducted by Dr. Fred Yelverton at North Carolina State evaluated Dismiss turf herbicide applied alone and in combinations for goosegrass control at the one- to four-tiller stage. Best results were achieved with a postemergence combination of Dismiss at the 8-oz. per acre rate and Revolver at the 17-oz. per acre rate.

"This combination highlights the benefits of both Dismiss and Revolver," said Yelverton. "Turf managers get the fast visual response of Dismiss, which disrupts the cell walls inside the goosegrass plant, and the long-term control of Revolver. In addition, the results are achieved with lower rates of both products."

www.fmcprosolutions.com



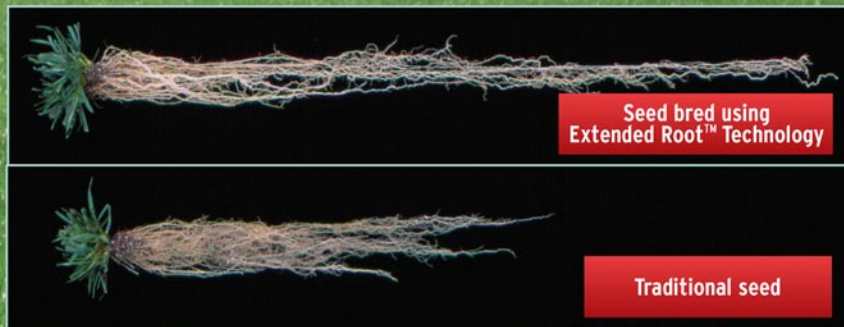
Fertilizer is byproduct of wastewater treatment

Crystal Green is a slow-release, renewable, fertilizer with phosphorus and magnesium, the only one on the market (5-28-0 + 10 Mg), says maker Ostara Nutrient Recovery Technologies. A new chemistry to fertilizers enables better slow-release properties. The phosphorus and ammonia in the product are recovered from wastewater; it can be used in the same manner as monoammonium phosphate or coated products or as a substitute for any existing phosphorus source, says the company. Ostara says is a more predictable product because it is not affected by excessive moisture, bacteria and temperature changes. Crystal Green currently is being manufactured by Ostara in conjunction with a wastewater treatment facility near Portland, OR; new facilities are opening in Pennsylvania and Virginia later this year.

www.ostara.com



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NewRider 3000 Redesign

The redesigned NewRider 3000 now has a low profile 50-gallon tank with larger opening for easier filling and cleaning. A new high back seat with lumbar support has been added for operator comfort. The spray nozzles now feature no tools, quick change nozzles for easier cleaning and line width changes. The NewRider 3000 also includes a 13 hp Honda engine with electric start, hydrostatic transmission, seat-based operator controls, foot pedal for forward/reverse, Bi-Directional spray head, hand wand and water bottle holder. Available options include a side spray head and sun shade.

www.newstripe.com



Brite Striper 3000 SP

The new Pioneer Athletics Brite Striper 3000 SP is a self-propelled airless striping machine; featuring a break-through belt-and-chain drive system, an optional 15-gallon hopper, and a 5.5 hp Honda engine. The Brite Striper 3000 SP uses a high-pressure pump with adjustable pressure from 0-3,000 psi and can be used on both natural and synthetic turf surfaces, but is versatile enough to stripe parking lots or paint large areas. The electrical clutch system pump engagement maximizes the life of the pump and allows the user to easily adjust pressure.

www.pioneerathletics.com



Kiscutter sod cutter to the sports turf market

Turfco now offers the Kiscutter Sod Cutter to sports turf managers. Lighter in weight, the simple-to-use Kiscutter weighs only 140 pounds. An inexpensive option, it is easier to operate and transport than traditional sod cutters. Four-wheel design, pneumatic tires and a rear-wheel drive are some features making it easier to operate and transport. It also features a 5.5 hp Honda engine, which can cut up to 150 feet per minute, but produces lower vibration reducing operator fatigue. Easier to understand than any other sod cutter on the market, operators just have to set the depth adjustment and then run simplified controls on the handle bar. Additionally, lightweight folding handles result in easy lifting, hauling and storage.

www.turfco.com



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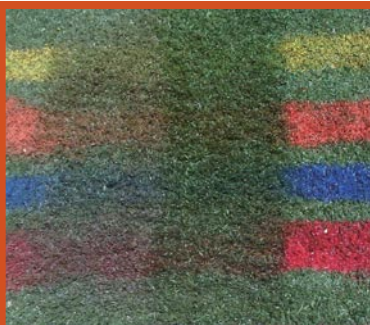
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-Richard T. Moffitt,
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www.athleticfieldmarker.com

New Terex compact track loaders

Terex introduces its newest compact track loader models: the PT-100G and PT-100G Forestry. The largest compact track loaders in the Terex lineup, these new models offer operators a 14.6% increase in tractive effort in low gear for more pushing power, a 32% increase in horsepower to the attachment, a redesigned loader arm to achieve greater reach and 13% more bucket breakout force over their predecessors. These models boast a class-leading 99.9-hp (75 kW) engine and 310 lb-ft (420 Nm) of torque, the most in the CTL industry. Brand new to the PT-100G models, the cooling fan blades will automatically adjust to provide optimum airflow while minimizing engine horsepower consumption.

www.terex.com



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Jay Griggs, Director of Sports Field Operations for the Kansas City Wizards of the MLS, led his crew at CommunityAmerica Ballpark, a multi-purpose stadium in Kansas City, Kansas, home of

the Kansas City T-Bones of the independent Northern League, and temporary home of the Wizards. (The Wizards are building a soccer-specific stadium in Kansas City that is due to open mid-2011.)

Full-time staffers Justin Bland and Mike Moyer, and part-timer Ryan Locke are also credited with bringing home the award despite difficult circumstances.

"Today the more events you can have the more money you can make. Our concern is at what point are there going to be more events than time for maintenance and field quality?"