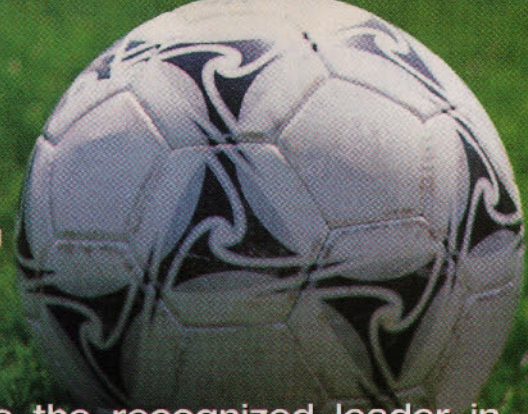


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## Maintaining your **synthetic** field

By Troy Squires

The 3rd-generation turf revolution is well underway. Only a few years ago, installing 60-70 fields a year was considered a major breakthrough; now we do that many just in the month of June.

At the same time, we have some cause for concern.

It's related to the lack of maintenance on some of these new fields. In the beginning, infilled turf fields were being sold as "maintenance free." As many of you know, this simply isn't the case. What worries us at FieldTurf Tarkett is that some companies are still stressing that fields can go without much maintenance.

Do infilled turf fields reduce maintenance? Absolutely. They also reduce water and pesticide use, mowing, topdressing, etc. Are they maintenance-free? Sorry, but no way.

Our company provides a comprehensive maintenance manual to all of our clients. By following the maintenance procedures outlined in this manual, the field will be kept in optimum condition and the playing characteristics will be maintained longer. We have compared fields closely after years of heavy use and those that get consistent, thorough maintenance simply look and play better over time when compared to fields that get little or no maintenance.

First, let's talk about "break in." After installation, your field surface may feel softer than anticipated. Full penetration of the infill between the grass fibers and its subsequent settling into a uniform playing surface

will occur naturally over time with normal rainfall and initial use of the field. Depending on climatic conditions, this "settling in" period usually reaches its optimum, generally after 2 to 3 months of use, maybe less. After this period the field will stabilize to perform according to design specifications.

To maintain optimum performance and appearance of your field, the following maintenance procedures must be performed regularly using the recommended maintenance equipment. One maintenance ally you have, as usual, is a good soak of rain:

### **Litter removal**

Use a lightweight, "estate" sweeper designed for litter removal, e.g., peanut shells, paper, confetti, etc. This kind of sweeping activity is quick and easy and should be done on an "as needed" basis, but generally once a week during heavy use. (FieldTurf provides one to customers.)

### **Weeds and moss**

Like its natural cousins, the infilled turf may still become susceptible to weeds. It is important to prevent weeds and moss from growing on FieldTurf as it can affect the playability of the surface. Although routine maintenance will prevent this from happening, weeds may occur at the interface between the synthetic grass and the perimeter curb. Should this occur, weeds should be treated with the biodegradable

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## Verti-Brush

The Verti-Brush quickly and effectively levels and distributes applied or existing infill with powerful hydraulic brushes.



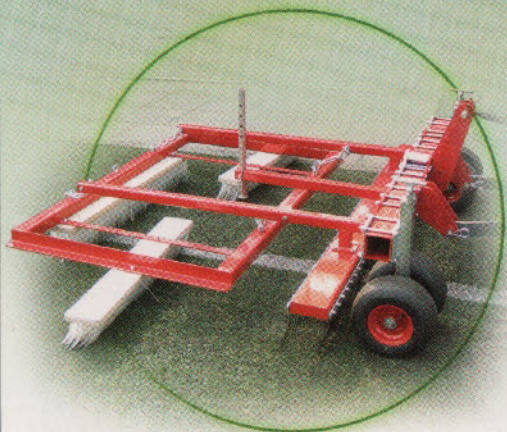
## Verti-Top

The Verti-Top employs a highly effective synthetic rotary brush to remove debris and top layer infill from the turf, then sifts the debris out in a unique vibratory shaker which redistributes the clean infill back on the field.



## Verti-Broom

For brushing and striping of artificial turf, nothing beats the proven Verti-Broom. The highly effective triangular arrangement of the brushes will straighten and groom each grass blade for an attractive and realistic finish.



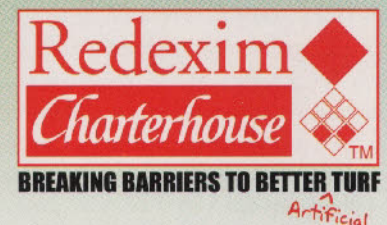
## Verti-Groom

To brush, loosen and decompact the hardest infill, the Verti-Groom is equipped with a variety of interchangeable tools.



## Verti-Air

The Verti-Air utilizes a rotary brush and turbine compressed air to lift all material out of the turf, dry and filter the material, sift out the debris and return the clean, dry and decompact infill back into the turf.



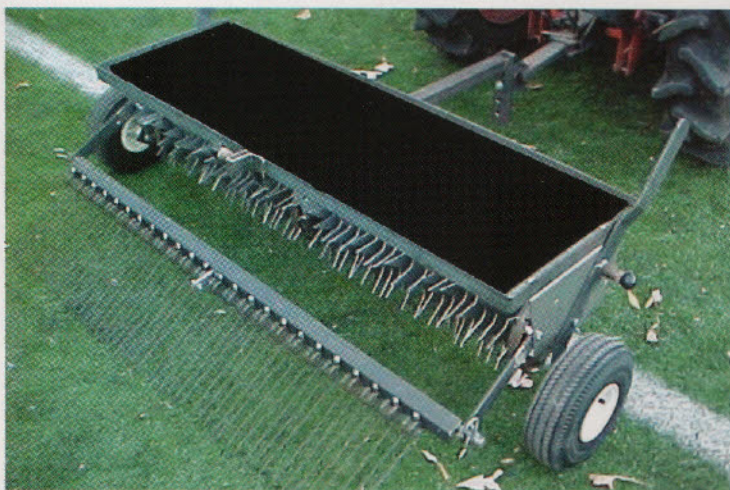
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weed killer such as RoundUp, which won't negatively affect the fibers or the coloring of your field. If the weed problems should arise, a 3-prong tool can be used to remove weeds and moss from the affected areas. This should be done carefully to not tear the backing and damage the fabric.

Moss can grow on the field surface if the following conditions are present:

- The field surface has not been maintained or groomed over a long period of time.
- If there is an unusual amount of shade on the field and the field has been neglected.
- If the field surface has been left covered with vinyl tarps over a long period of time.
- If there is sufficient moisture and all other conditions for growth are met.

Weed and moss can only occur if the field has been neglected.

## Fill displacement

FieldTurf has a very heavy fill of sand and rubber that is unlikely to float, even in heavy rain. But routinely grooming the field will assure that the infill is uniformly distributed at all times over the entire field surface. Intensive and repetitive use of certain areas of the field such as the kicking action of the players may cause the infill material to be displaced. Particularly for soccer fields, these specific areas are: penalty shots, center spots, and corner kick areas.

## Field Protection

Today's athletic facilities must be able to accommodate additional events to increase the possible revenue sources. If events or venues other than approved activities are to be held on your field, the surface must be protected at all times to prevent possible damage. Tarps are good for general purposes; however, special events may need additional protection, such as plywood to spread the loads of stages or vehicles. A call to the synthetic system's service department can get you the right information on loading and special protective equipment that is recommended.

## Disinfectants

The issue of disinfecting turf is a subject unto itself. Bottom line, synthetic fields, like grass, gym floors, wrestling mats and other sports surfaces can harbor microbes that can cause infections. It is a hygiene issue. Scrapes and cuts, if they occur, must be cleaned and disinfected thoroughly (because synthetic fields are not muddy or dirty, players sometimes think cuts are "clean" and do not clean and disinfect them as aggressively as they do on natural grass fields).

Players should not share whirlpools or towels, must shower after every activity, and should wash towels and uniforms frequently (daily is recommended). (FieldTurf offers cleansers and other anti-microbial treatments.)

*Troy Squires is vice president of marketing for FieldTurf Tarkett, [www.fiel dturf.com](http://www.fiel dturf.com).* ■

## product spotlight



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3 rows of 28 tines.



## VA Tech applies antimicrobial to all fields

**T**he synthetic turf fields, sports medicine training room, locker rooms, whirlpools and wrestling rooms of Virginia Tech Athletics have been treated with the colorless, odorless Sports Antimicrobial System (SAS). Virginia Tech is the first Division I university to apply the antimicrobial to its athletics facilities.

The product creates a long-lasting antimicrobial layer effective against a very broad spectrum of all known bacteria, mold, fungi and algae, says the manufacturer.

"With bacterial staph infections like MRSA and fungi like ring worm and mold affecting many student-athletes across the country, the need to protect your facilities has become a necessity. We were not going to wait until we had a problem," said Jim Weaver, athletics director at Virginia Tech.

Hokies' sports turf and athletic grounds manager Casey Underwood told *SportsTurf* the concern of MRSA outbreaks at some other institutions this year brought about the treatments. "The company handled all applications. The artificial turf was sprayed with a three-point mounted rig," said Underwood. "I can't see it or feel it."

The TurfAide Platinum program comes with an 8-year extended warranty. Included in the package, CSG will make annual service checks to ensure the antimicrobial layer remains active and retreat as needed, according to the manufacturer, SportCoatings.

"Unlike conventional disinfectants that wash away and dissipate quickly, SAS durably bonds to the surface, actively fighting microorganisms 24/7," said SportCoatings president Art McWood.

SAS is comprised of three products: TurfAide provides antimicrobial protection to synthetic turf systems; SportsAide protects athletic



facilities including training rooms, locker rooms, whirlpools, gym mats and exercise equipment; and SportsAide Fabric Conditioner provides antimicrobial protection, stain releasers and odor control to sports laundry.

"Using the SAS system is like having an airbag in your car," said Mike Goforth, Director of Athletics Training, "you may not be able to see it, but the parents of our athletes can feel confident knowing that their sons and daughters are training in safe facilities when they come to Virginia Tech."

"You could tell it worked quickly. Within 24-hours of the application it erased the typical locker room scent. It brought a noticeable freshness to our facilities" said Denie Marie, facilities manager of Rector Field House.

The nano-technology powering SAS is the ÆGIS Microbe Shield that has been safely used in consumer goods ranging from shoes to diapers surgical dressings for more than 30 years. Registered with the EPA, it imparts an invisible layer of antimicrobial protection that will not leach any chemicals or heavy metals into the environment and will not rub off onto a player's skin.

"What makes the ÆGIS Microbe Shield unique is that it functions through a physical mode-of-action versus the chemical poisoning associated with traditional antimicrobials," said Curtis White, Chairman and CEO of ÆGIS. "This physical mode-of-action prevents microbes from adapting to the shield so there is no ability for 'super bugs' to develop resistance."

Extensive warranties and service agreements are available on SAS applications to ensure the active antimicrobial layer remains intact. ■



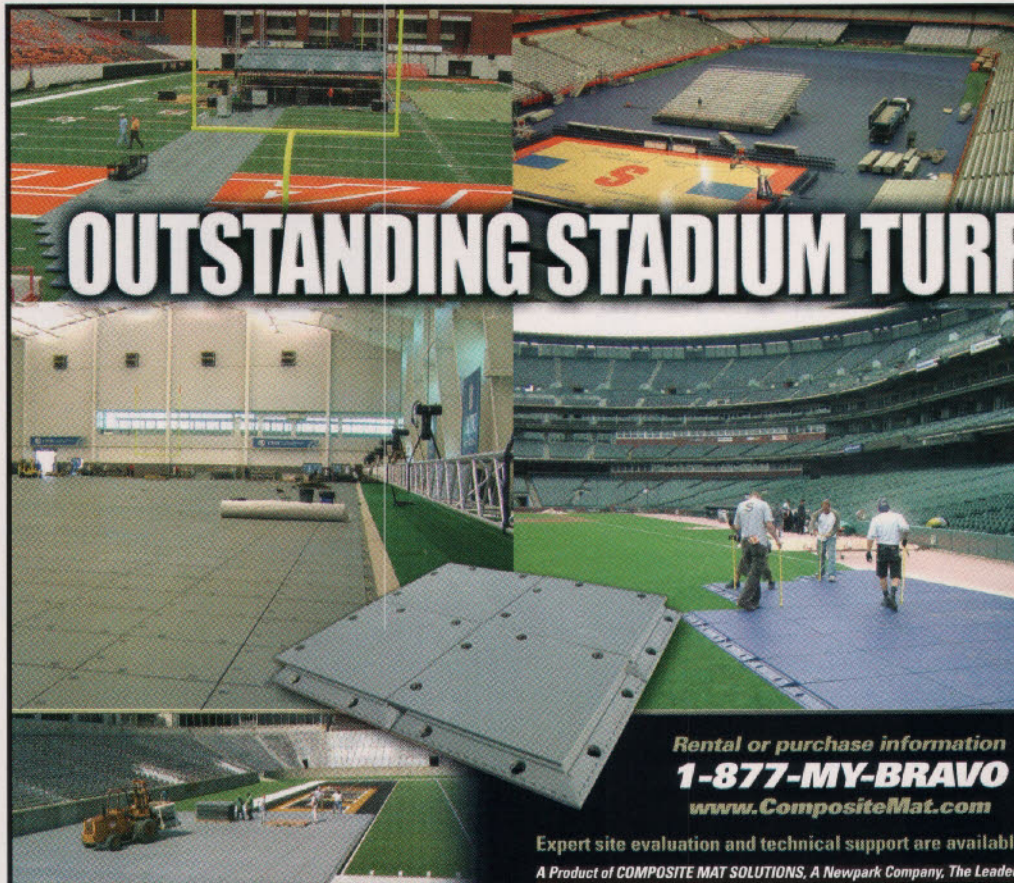
# John Mascaro's Photo Quiz



## Answer: from page 26

This athletic field was being maintained properly by a well-respected maintenance company when the overseeding mysteriously turned brown. The entire field did not turn brown however, just the areas where the lines were painted for football. The areas between the lines remained green and vigorous proving that the field was being maintained properly. After some intensive investigative work it was determined that a "fan" of good grass took it upon themselves to apply a pre-emergence herbicide and fertilizer blend to the field to ensure the poa annua would remain in check. This was done without the maintenance company's knowledge or approval. They apparently applied it to the field in an "S" pattern in the late fall or early winter and did not water the material in properly. The ryegrass was burned by the fertilizer where the material was applied and new ryegrass would not germinate due the persistence of the pre-emergence. This photo shows that extra help is not always welcome when it comes to growing sports turf. Photo sent anonymously. ■

If you would like to submit a photograph for John Mascaro's Photo Quiz please send it to John Mascaro, 3669 NW 124th Avenue, Coral Springs, FL 33065 or email to [john@turf-tec.com](mailto:john@turf-tec.com). If your photograph is selected, you will receive full credit. All photos submitted will become property of SportsTurf magazine.



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# Irrigation upgrades that power performance

By Luke Frank

Let's pretend, because it's always more fun, that we just received a budget windfall, say a 5-percent goose in capital funds over last year without any foreseeable increase in expenses. It's not a huge chunk, but an opportunity for upgrades.

Your mowers, topdressers, aerifiers, trucksters and tractors are in pretty good shape, so you've elected to dedicate the entire lump to irrigation upgrades. Finally, that recurring hotspot in deep left field can be addressed. Where to begin?

Irrigation consultants worth their salt will suggest that you begin . . . well . . . at the beginning. Where can you make the most effective and logical upgrades that will affect the long-term performance of your irrigation system, and therefore your athletic field? What single irrigation system component can yield the greatest results for your turf management program?

### Evaluate and pontificate

You may already know exactly where to go based on system age, wear and overall performance. Perhaps that's the launch point; evaluating system performance and making simple adjustments to sprinkler head tilt and grade, head spacing, nozzle checks and replacement, valve checks and replacement and so forth.

Once you've made those adjustments and everything is operating relatively smoothly, hydraulically speaking, there are opportunities to shorten your overall irrigation regimen, relieve any water hammer issues in the piping system and improve coverage that will reduce overall resource consumption by your system.

When considering new features for your antiquated irrigation system to make things more efficient, look toward your control systems first. Pump controls and irrigation timers can offer new heights of system control that affect delivery efficiencies from the piping system to the heads.

Upgraded pump controls can enable you to use your entire system more efficiently by maximizing your pump curves through the activation



of more zones in each irrigation set while keeping your main and laterals filled and pressurized more consistently. This is a significant move, so unless you're adept at reading pump curves and familiar with the technology, bringing in an outside professional might be in order.

Pump controls also should be considered if you plan to add a fertilizer injection system to your irrigation set-up. Wouldn't it be nice to apply gypsum, wetting agents or nitrogen through your irrigation system in small, digestible increments zone by zone? Sports parks and athletic fields take tremendous abuse with the frequency of a bar's bathroom. Strong root and chute growth is important to turf's durability and resilience, so by applying nutrients in smaller amounts more regularly you can quickly rehabilitate stressed turf areas without worrying about granular fertilizers lingering atop the surface. Moreover, if you're dealing with water or soil pH problems, fertigating can help to establish and maintain the desired balance.

Since we're talking about controls, it may be time to graduate from an old electro-mechanical timer to a new, digital, solid-state irrigation



control system. Newer commercial digital controllers are affordable and offer more features than most water managers are willing to use. Many also are “networkable,” meaning they can be configured as a central control system if you have big clusters of ball fields.

However, the key is that they are considerably more accurate minute-to-minute in programming and activating watering times, more flexible with multi-program, multi-cycle capabilities, and wired for more retrofits like weather stations, rain, wind and/or flow sensors, as the budget allows.

There's a pretty wide selection of control systems available to you, so consider all of your site's needs before you start looking at features. Remember, if you upgrade your controller, select a model that offers more stations than you currently need. For many projects, future system expansion is inevitable.

### Minimizing geography

Some sites might lend themselves to remote-control capabilities. Activating and programming irrigation from most any point on the site can save a lot of time, manpower and grief when troubleshooting system problems, particularly for large facilities with multiple functions.

Charging a trouble turf head while standing next to it identifies the problem a lot faster and makes it considerably more likely the repairs or adjustment will be refined and confirmed.

There are both universal and brand-specific remote control products out there that put the power in your palm. Remote control capabilities are in fact one of the more fun upgrades, but at the same time they're amazing time savers. Those who have them vow never to go without again.

Sticking with the control system, rain and wind sensors are simple, affordable retrofits that improve your water use and turf health. The concept is pretty straightforward; they operate by interrupting the signal that activates the valves. Many of these products automatically reactivate the irrigation system when conditions have improved below your desired threshold, so your turfgrass gets what it needs, but at a time when it can better use it.

Buy a proven product from a respectable manufacturer, mount it in an appropriate spot, run a couple of wires and you're good to go with the only tasks left being simple adjustments and routine inspections. Nobody wants to see, or be seen, irrigating during a downpour. Your employer(s), their customers and in some cases public authority take

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# IRRIGATION & DRAINAGE

great offense at such a visible waste of resources. Sensors can be a simple solution.

Many irrigation consultants will tell you that the future of turf irrigation management is low-volume, low-pressure delivery. It's more accurate, less susceptible to the elements, more compatible for even soil absorption, and frankly easier on system components in the field.

Ideally, irrigation systems are designed to perform with static and dynamic pressure available at the site. If pressure is too high, sprinkler water atomizes and drifts away—commonly toward all the vehicles in the parking lot. If adjustments at the valve or the sprinkler(s) don't sufficiently reduce pressure to create larger droplets and a more uniform pattern, regulate main and/or zone pressure(s).

While you're down there splicing in pressure regulation around the valves, make sure your valves are protected by solid, clean, accessible enclosures. Valve enclosures come in numerous colors, shapes and sizes, and you should house all irrigation components you think might need to be accessible, from quick couplers to relief valves.

Back to pressure regulation, the key is ensuring that your system is operating within designed flow and pressure specifications. A solid irrigation design by an independent consultant will integrate the most appropriate products for the site in harmony, regardless of product manufacturer. There is significant value in outlaying a good chunk of budget for system components that operate in unison in the protection,

treatment, delivery and dispersal of irrigation water. Moreover, there's certainly value in guaranteed system operating performance beyond product failure.

A couple of side notes: any zone on your current system that can be converted to low-volume irrigation should be. Turf heads blowing three gallons per minute over annuals or perennials near the box office or in entrance/parking lot medians can create more problems than they solve.

Finally, turf facilities tend to feature a lot of medium to heavy equipment operating from time-to-time across the playing surface. Ensure that all heads are supported by some manner of flexible riser. Swing joints, whether you assemble your own or buy them prefabricated, provide nice shock absorbers for mowers, trucksters, tractors, aerifiers, whatever.

These are but a few of the mountainous opportunities to improve irrigation performance. Some are simple tune-up tasks, while others may require some outside expertise. Any upgrade that significantly affects system flow and pressure, e.g., adding or changing sprinkler heads, zones, pump controls, etc., needs to be more carefully evaluated and accurately specified. It might be well worth it to contact an irrigation consultant in your area and pick his or her brain.

*Luke Frank is irrigation editor for Green Media. He can be reached at [lukefrank@earthlink.net](mailto:lukefrank@earthlink.net). ■*

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