If you guessed that this light green turf between the curved lines was caused by a steam roller race, you would be close to being correct. This light green turf was actually caused by an 18-hour nonstop walking marathon course set up for the “Relay for Life” event. This event boasts a 1/3 mile walking track that was painted directly on the turfgrass around this municipal sports field. In the relay, teams of between 10-15 people continually walk around and around the course to raise money for the American Cancer Society. The athletic field was spared most of the major foot traffic wear; however campsites, tents, a stage, several food tents as well as a bounce house were set up on the field’s playing surface. To aggravate things a little more, they also had some rainfall before the event. Three and a half million people in 5,000 communities in the United States, along with additional communities in 20 other countries, gather to take part in this global phenomenon and raise much-needed funds and awareness to save lives from cancer. So a little turfgrass wear is well worth the effort.

Photo submitted by Tim Legare, CSFM, Director for Leisure Services for the City of Callaway, in Florida.
How one small college maintains high-performing natural turf fields

Editor’s note: This article was written by a principal of DryJect, Inc.

With a growing level of interest in synthetic turf fields, colleges and high schools must weigh the costs with the benefits. Synthetic turf fields have a place, to be sure, where multiple events are planned on one field. Excessive use would damage natural grass to the point of non-survival. While synthetic fields can host hundreds of events with minimum maintenance, the initial investment puts them out of reach for many small colleges and high schools.

Everyone from the athletic director to the team mascot has a stake in a sports field that performs well, especially in adverse conditions. Community and alumni pride, recruitment appeal and player safety are just some of the reasons driving technical and soil science advances in improving natural grass playing fields.

Lebanon Valley College (LVC) in Annville, PA enrolls nearly 1,800 students, and has a full array of practice, intramural and event playing fields. Kevin Yeiser is the sports turf manager at LVC, but sees himself as something as a newcomer when it comes to the playing surface at Arnold Field, home of LVC football, lacrosse and track and field. Yeiser and LVC received the 2009 Pioneer Athletics Field of Excellence Award in recognition for its care of Arnold Field. Winners are selected based on the high quality of athletic field upkeep.

When Arnold Field was built in the mid 1980s, the contractor used drainage techniques used for decades by farmers in the fields on the low lying valley, where the water table is high, and where drainage can be a problem in rainy seasons.

“Terracotta clay tiles shaped like a ‘U’ were laid in overlapping fashion in a line and buried 18 inches deep on 8-foot centers. Fully buried in the soil, the tiles form a low-pressure channel that helps to draw water down and away from the field.”

Dr. David Minner, from Iowa State’s Department of Horticulture, and a well-known sports turf authority, suggested to Yeiser that the clay drainage tiles theoretically help drain away the subsurface water table as well as any moisture penetrating the field’s soil profile to that depth.

In spite of that novel drainage system, extreme conditions would pose a true test of the natural grass field.

“In 2009 we had back-to-back football games. It rained during the first game and the turf got saturated. Then before the next game the following week we had another 2 to 3 inches of rain. The turf was flying like pieces of carpet, there were puddles everywhere, and the players were standing in mud. Not good,” said Yeiser.

Yeiser and his small crew follow a good aeration routine, using ¾-inch tines to aerate at the end of the football season in November or December, then again after lacrosse season in the spring, with a light aeration at the end of the summer.

“Following the 2009 season we tried something different,” said Yeiser. “We contracted the DryJect service to come in and inject Profile porous ceramic over the whole field at Arnold Stadium. We had tested this technique in the lacrosse goal creases and it seemed to produce a good result. The resulting surface was firmer and withstood the heavy traffic better.”

In the fall of 2009 LVC used the DryJect and Profile porous ceramic technique on the entire field at Arnold Stadium.

The DryJect machine “shoots” a blast of water and air under high pressure into the soil surface, immediately reducing compaction in the soil. The half-inch holes form a grid pattern 3 inches apart across the entire field.

The high-pressure blast creates a vacuum behind it that draws in dry material, filling the blast hole to the top with the soil amendment. The DryJect hole can reach up to 4 or 5 inches deep, depending on soil conditions. The amendment fills the hole to improve surface drainage, while keeping the surface firm.

“The treatment definitely helped our field drainage,” Yeiser said. “On March 13, 2010 we had two lacrosse games back-to-back in the middle of a terrible rainstorm, more than 2 inches. There was no mud on the player’s shoes, the footing was firm and the turf needed only a minimum of repair after those two hard-fought games.

“Me it’s a pretty good test of how well the technique works. Before the treatment a 2-inch rain gave us mud and torn up turf. After the treatment, a 2-inch rain gave the players a chance to play their best with good footing. There simply was no mud to be seen on the playing field that day. That’s proof enough for me,” Yeiser said.

Even for schools with synthetic turf on their main field, practice and intramural fields are often in need of improved drainage. Because of the ongoing wear and tear on grass fields, experts say that the aeration and soil amendment technique is most effective when used as a routine part of the ongoing sports field maintenance program.

Yeiser and LVC received the 2009 Pioneer Athletics Field of Excellence Award in recognition for its care of Arnold Field.
New Gulp syringe de-watering pump
Underhill introduces the Gulp Syringe Ultra, latest addition to the company’s Gulp line of de-watering pumps for turf and landscape areas. The series’ most compact model can be used for multiple tasks, including: water removal from sprinklers or valve boxes; spa and fountain clean-out; and plumbing or pipe repair. It features a 12-inch clear plastic chamber and pumps up to 12 ounces per stroke. Like all Gulp pumps, the Syringe Ultra is constructed from heavy-duty, corrosion-proof materials and has a stainless steel shaft for reliable performance. The pump chamber is so strong it can withstand damage from accidental “run-overs” by carts or trucks. The pump is also self-priming and easy to clean. Inlet and exit caps twist off for rinsing and the dual wiper seal can be replaced.

www.underhill.us

New aerator sizes from TurfTime
TurfTime Equipment introduces 5 new sizes of aerators ranging from 36 to 96 inches. The new design enables the use of both slicing and coring tines. Standard gauge roller comes with slicing tines and ballast tank. These machines carry a 5-year limited warranty. Optional wheel lift kits are also available.

www.TurfTimeEq.com

Next generation Toro Z Master riding mowers
Toro Z Master zero-turning radius mowers have a new look and enhanced performance for 2009. The Toro Company designed the Z Master G3 models based on feedback from hundreds of users and tens of thousands of hours testing in the field. The result is enhanced traction and hillside stability, plus improved operator comfort and control, in a mower that includes Toro’s revolutionary TURBO FORCE cutting deck. The ten models in the Z Master G3 series have been designed with a lower center of gravity, greatly enhancing hillside stability and traction for better control and less “crabbing.” The lower center of gravity results from a vertical shaft engine that sits lower in the chassis, a lower operator position and the 12-gallon fuel tank that is now located under the operator’s seat.

www.toro.com

Stander ZK large-deck mower
Wright Manufacturing’s Stander ZK has deck widths of 52 and 61 inches and engines up to 31 hp. Decks are deeper; wheels are larger; fuel capacity is greater than the traditional Stander, and the ZK can mow at speeds up to 13.5 mph, which is faster than many mid-mount zero turns. The ZK offers all the benefits of Wrights traditional Stander, such as low center of gravity for hillside stability, shorter overall length for added maneuverability, and the operator can just step off the spring suspended stand-on platform in case of emergency or to pick up debris.

www.wrightmfg.com

Mete-R-Matic III and Mete-R-Matic XL from Turfco
Go green with the Mete-R-Matic III and Mete-R-Matic XL, the ultimate machines in sports turf topdressing. Both machines allow you to just hook up and go. A patented Chevron belt delivers the most uniform application of any topdresser on the market whether its sand, compost, crumb rubber or calcined clays, regardless of moisture content. An eco-friendly, patented ground drive system assures uniform spread, even at varying speeds. And with no hydraulics, PTOs or engines, speed calibration is not required. The Mete-R-Matic III features a 23 cubic feet hopper capacity, and the Mete-R-Matic XL is three times this size at 60 cubic feet. The Mete-R-Matic series of topdressers are the only machines on the market with a three-year warranty.

www.turfco.com
New spreader options for dump bodies
The new SP-2200 and SP-2200-H from SnowEx provide under-tailgate options for installing spreaders on dump bodies. These spreaders mount underneath the rear gate of dump bodies, rather than replacing the gate. They are available with either electric (SP-2200) or hydraulic (SP-2200-H) drives to further meet individual needs. A mounting kit comes standard with the spreaders, allowing them to fit on the existing attachment points found on a wide variety of dump bodies (some fabrication required). Once installed, they accommodate the rising and lowering of dump beds because of a self-leveling feature that keeps the spinner assembly parallel with the ground.

www.trynexfactory.com

New Dirt Medic model
Newstripe has added a finishing broom for the Dirt Medic infield groomer specifically designed for use with garden tractors, light utility vehicles and ATV’s to fill and level Little League to High School infields. The new finishing broom makes the Dirt Medic a complete system to grade, level and finish infield surfaces. Built with the durability of larger units, the Dirt Medic weighs 200 pounds and has a 4-in. wide grooming path. A single hand crank adjusts both the angle and depth of the harrow teeth and reversible cutting bar from the driver’s seat without the need of tools or electrical connections. Dirt Medic is backed by a 36-month warranty.

www.newstripe.com

Honda Commercial Mowers
Honda’s HRC Commercial Series mowers consist of two models: the self-propelled, hydrostatic drive HRC216HXA and push-type HRC216PDA. The HRC Series’ legendary mowing performance is enhanced by offering Honda’s exclusive MicroCut™ twin-blade mulching technology. Twin blades produce finer clippings for mulching, and finer clippings means less bagging. The HRC mowers feature dome shaped deck design that facilitates both bagging and mulching while delivering finer clipping particles; offset twin blade MicroCut System (the only 2-blade 21” commercial mower); hydrostatic Cruise Control transmission that has been redesigned for increased durability and higher top speed; (HXA model only); and improved heavy duty handlebars that are now adjustable for height.

www.hondapowerequipment.com

Cub Cadet Commercial’s TANK S LP
Cub Cadet Commercial is giving green industry professionals another option for fuel efficiency with the TANK S LP. Powered by either an 852 or 999cc Kawasaki engine, the TANK S LP offers reduced emissions and fuel costs while giving users the same high-performance found in all TANK S units. The benefits of liquid propane extend far beyond reduced emissions as lawn care professionals will also enjoy longer engine life, longer run times and less engine maintenance. Additionally, the TANK S LP meets all current EPA and CARB emissions standards making it the perfect energy efficient solution.

www.CubCadetCommercial.com

New electric sprayer attachment for ZT mowers
The new US250 sprayer from TurfEx features a universal mount that allows it to attach to the front of most available zero-turn mowers. This unique mounting system stays within the mower’s footprint, unlike competitive tow-behind units. Furthermore, the US250 is completely electric powered, meaning there are no engines or hydraulics to maintain.

Driven by a 12-volt electric motor, the sprayer draws its power from the mower’s battery. The pump is rated at 2 gallons per minute at 60 psi, and the corrosion-resistant polyethylene tank holds up to 25 gallons

www.turfexproducts.com
Pro League Heritage Red new from Turface Athletics

Turface Athletics introduces an exclusive new color to its popular lineup of infield conditioners called Pro League Heritage Red. The new color is a classic, rich cherry wood for skinned infields, while offering the same optimum moisture management professional groundskeepers have come to expect from Turface Pro League. The newest product provides excellent ball visibility, and the rich color is consistent on both wet and dry infields. It remains uniform throughout the game. Already being used on a number of Major League Baseball fields, Heritage Red is now available to turn any field into a signature diamond. The new color effectively matches many darker infield mixes and can be pre-blended into an infield mix or used as a topdressing.

www.profileproducts.com

All-new ESP-LXD Controller

The ESP-LXD maintains the look, feel and simple programming made popular by Rain Bird's ESP-LX Modular Controller. However, instead of being connected to the system's valves through multi-wire bundles, the ESP-LXD interfaces to a two-wire path for decoder-based irrigation. Easily expandable from 50 to 200 zones, the ESP-LXD offers flexible features and modular options that make it ideal for athletic complexes and campuses.

The ESP-LXD allows contractors to custom design four independent programs for greater control that saves both water and money. Each program allows water to be delivered based upon climate, plant needs and location.

www.rainbird.com/esp-lxd

Kubota enters compact track loader market

Kubota Tractor has introduced 75-hp SVL75 and 90-hp SVL90 compact track loader models. Powered by efficient Kubota engines, the new compact track loaders are all-Kubota designed, engineered, and manufactured. Both models deliver best-in-class bucket breakout force and exceptional lifting capacity to provide outstanding performance and productivity. The 74.3-gross horsepower SVL75 boasts a 6,204-pound bucket breakout force and a 4,881-pound lifting capacity. The 90-gross horsepower SVL90 has a bucket breakout force of 7,961 pounds and a lifting capacity of 5,869 pounds. Both models are powered by a four-cylinder, direct injection, turbo-charged Kubota diesel engine. Kubota’s versatile compact track loaders are equipped with a rigid-mount undercarriage and a vertical lift designed for long reach and maximum lifting and dumping capabilities.

www.kubota.com

“Starter” herbicide for newly seeded turf

A new “starter” herbicide providing post-emergent weed control without the wait, SquareOne herbicide from FMC Professional Solutions, has been registered by the EPA for use on athletic fields. Unlike other products that are too harsh on newly seeded turf or require multiple applications, SquareOne herbicide can be applied just 1 day before seeding or as early as 7 days after emergence on most cool and warm season grasses. This means weed populations are reduced from the start, allowing for maximum turf density with fewer herbicide applications or the need to reseed the following spring.

www.fmcprosolutions.com

www.stma.org
The Sports Turf Managers Association was founded in 1981, and throughout its short history it has helped to shape sports field and athletic facilities management into a significant profession. Continuing education and professional development are core to its mission: “To be the recognized leader in strengthening the sports turf industry and enhancing members’ competence and acknowledgement of their professionalism.” Through its programs, services and outreach efforts, STMA strives to help its members succeed and be recognized for their important work.

An association’s strength is also determined by its financial stability, and STMA presents solid financial health, as validated by the 2009 Audit process.

Key Accomplishments
2009

- Certified our 100th sports field manager through the CSFM program.
- Presented STMA’s first webinar, Foliar and Granular Fertilization.
- Installed the first International Affiliate Organization, The Sports Turf Association, headquartered in Ontario, Canada.
- Held the STMA Conference and Exhibition in San José, a new location for the event.
- Created and offered a dues forgiveness program for unemployed members.
- Added more than two dozen educational resources to the website.
- Elected the association’s first female president, Abby McNeal, CSFM.
- Co-sponsored the American Sports Builders Association (ASBA) certified sports field builder program.

2009 Independent Auditors Report Summary
Long CPA, PA

Support and Revenue
Administrative & Programs $ 605,728
Annual Meeting 653,961
$ 1,259,689

Expenses
Administrative & Programs $ 562,785
Annual Meeting 472,924
$ 1,035,710

Excess Revenue over Expenses $ 233,979

STMA's financial goal is to hold one year of operating expenses in reserve. To this end, the STMA Board of Directors moved $116,000 of the excess revenue to its restricted funds to further the goal of $1+ million in operating fund in reserve. For more details, go to STMA members only at www.STMA.org and click on the 2009 Audit Report.
**2010 (first 7 months)**

- Introduced a new member recognition program with 5, 10, 15, 20 and 25 year service pins.
- Held a successful annual conference in the Orlando area and for the first time audio-recorded it for members continuing education.
- Officially installed two new STMA Affiliated Chapters: the Oregon STMA and the Central Florida STMA, which expands the network to 33 affiliated chapters.
- Digitized the entire collection of *SportsTurf* in collaboration with MSU Libraries.
- Brought national level education to four local chapters through the STMA Northwest Regional Conference, held in Seattle on July 21-22.
- Developed a recognition program, the Innovative Awards Program, for commercial companies that advance the industry.
- Created educational bulletins, one on composting and a series of maintenance calendars for summer and fall field management practices for warm-season, cool-season and transition zone turfgrasses.
- Engaged 22 committees and created two new task groups: one to focus on international initiatives and one dedicated to defining STMA’s role in environmental stewardship.
- Developed a plan and began implementation of a website redesign for www.STMA.org.

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**On the Horizon**

During the next few months you will have the opportunity to participate in a podcast and have access to new educational resources via the website. The Conference and Exhibition will be held in Austin, TX, another new venue for STMA, on Jan. 11-15, 2011. To see the complete digital brochure, go to www.STMA.org.

Look for member-authored articles promoting the importance of professional field management in publications that your employers read and in other sports industry periodicals. Your ballot to elect your 2011 Board of Directors will be arriving via US mail next month. Please take a few minutes to vote. Committee service will gear up in the first quarter of next year, and we will be asking you to volunteer to help direct the programs and services of STMA.

Your association is committed to finding more ways to provide you with value. Our goal is to save you time and money and provide a ready network of professionals who you can turn to with questions. We welcome your ideas and input on what you need now to create a more successful future.

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**SportsTurf**

**MANAGERS ASSOCIATION**

**Experts on the Field, Partners in the Game.**

STMA Headquarters
Ph. 1-800-323-3875
STMAinfo@STMA.org
The winning field, tended to by Joshua Koss, is the centerpiece to San Diego Jewish Academy (SDJA)’s 22-acre campus, which sits on a bluff at the intersection of Interstate 5 and highway 56 in the Carmel Valley area of north San Diego County. The school also boasts a view of the Pacific Ocean, which is less than 2 miles from campus at Torrey Pines State Beach.

The field was contracted out to a landscape maintenance contractor after its construction in 2005, according to Koss, who was hired in September 2008 after that contractor was dismissed. “Actual man hours and costs that were incurred for their services from January-August 2008 were unavailable to me,” Koss wrote in his entry. “We were fortunate not to encounter any major problems that compromised the appearance or playability of the field. Traffic control is and was our biggest struggle. All in all, we had a great year keeping the turf where it needed to be to withstand the wear and tear of the school year.

Future entrants might take note of how Koss handled the photos. “Additionally, the digital photography class at SDJA assisted in preparing the STMA application. I shared the photography guidelines in the application with the class instructor and he then developed a lesson plan and class assignment. The students shot the field during two 90-minute periods. It proved to be a challenging assignment for the instructor and his students alike. The results were positive and some of the student’s pictures are included with this application,” Koss wrote.

SPORTSTURF: What changes did you make to your maintenance plan this year, if any?
KOSS: Not many. I’ve tweaked my fertility program somewhat to correct nutrient deficiencies. I plan on increasing the seeding rate and seeding earlier in the fall this year. I decreased my overseeding rate last fall to promote the bermudagrass, but didn’t see the weather necessary to really get it running before preseason football started and my HOC was raised.

San Diego’s coast does not provide weather conditions during the early summer months to allow a complete and successful transition to and vigorous growth of bermudagrass. This summer we did not see sunny skies and soil temps above 70 until August. I try to do the right thing agronomically for the bermuda, but because of the ambient climate, I have been tempted to grow ryegrass year round. I also have plans to top level the entire field with approximately 180 tons of sand at the conclusion of the school year. The field has not been topdressed since its construction in 2005.

ST: What’s the best piece of turf management advice you have ever received?
KOSS: I have worked for many talented head groundskeepers and golf course superintendents. Patrick Coakley, CSFM once told me as we were walking off the field after pre-game in Myrtle Beach, “Leave no questions. At game time, you always want to leave the field in a condition where nobody will have any question about it.” It’s been almost 10 years since my time as Pat’s assistant with the Pelicans.

ST: How do you balance your work and personal time?
KOSS: I have no problem balancing my work and personal time. In fact, this question would be more accurately asked “How do I balance my personal and work time?”

SDJA’s campus is closed on all Jewish holidays. When the campus is closed I am not allowed to work. The campus is also closed on Fridays at sundown to Saturday at sundown to observe Shabbat (Jewish Sabbath). For instance, there are 22 Jewish holidays this school year that fall within the work week. Add on top of that eight traditional holidays, two weeks for Christmas break and two weeks for spring break.

When the campus is open on traditional holidays, the teams are training on the field. I have a lot of personal time...
away from the field, a lot more than most in this industry I recognize that and take advantage of it. Although, due to this schedule the field sometimes suffers because I struggle finding time to keep up with its needs.

**ST:** How much input do you have regarding administration decisions? How do you establish good working relationships with both supervisors and end users?

**KOSS:** When the decision is field related, I have a lot of input. Not one of my requests has been denied during my tenure here, and I am grateful for that. Membership in the STMA and this Field of the Year Award help my requests get fulfilled. It brings credibility to my profession and national recognition to my operation.

Our manpower at SDJA is limited. It is important to keep in mind how our operation impacts others. I try to operate without needing much assistance. My job is to protect the investment made in the field and provide a safe and playable surface for our student athletes. Consistent education and communication have built and continue to build good working relationships with supervisors and administrators.

Relationships with end users continue to be a challenge. First and foremost, I always have to keep our institution’s goals in mind: safety and revenue. Secondly, I have to keep the end user group’s goal in mind: a safe and playable surface. These user groups are the customer and I try my best to treat them as such.

More importantly, I have to communicate my goal: maintaining the condition of the field. I have to make sure the maintenance demands for the field never exceed what is feasible for me to accomplish with the tools, time and labor (myself) that I have. I am fortunate that most facility rental requests end up on my desk for approval before a contract is signed. There are many occasions where a request comes in and I deny it because the field would need to be aerated after the event. I budget my aerations around the SDJA athletic schedule and not outside rentals.