Aaron Boggs at the University of Louisville. Both are very enthusiastic about their jobs. They have a love for the green industry that shows through their willingness to teach others. They both truly care about the profession.

Dan Sawyer
CEO of Brock International

Introducing innovation to an industry takes a lot of perseverance. But that’s never stopped Dan Sawyer. As the Founder & Chief Executive Officer of Brock International, manufacturer of base systems for synthetic turf, he has helped engineer safe playing surfaces while actively promoting sustainability.

Sawyer first started redefining possibilities while working for Jay Medical in the early 1990s, a medical products pioneer that significantly improved wheelchair seating. Sawyer then applied his valuable insight on how forces impact the human body in launching Brock in 1999. The company’s premier product, Brock PowerBase, is a shock pad and drainage layer used beneath synthetic turf fields that has been proven to reduce G-max, which may reduce the risk and severity of concussion. Nothing like it existed before Dan and his team envisioned the technology. Today over 25 million square feet of Brock products is in play underneath athletic fields worldwide.

Sawyer has become a vocal advocate for concussion prevention education. With the perspective of handling hundreds of installations for clients ranging from NFL teams and major universities to community parks, he feels many brain injuries can be prevented through increased awareness as well as better technique, equipment and treatment. That’s why his company became an Official Education Partner of The Sports Legacy Institute, a Boston-based non-profit organization founded to advance the study, treatment, and prevention of brain trauma in athletes and other at-risk groups. In this capacity, Brock has provided funding that helped SLI deliver their two-hour Advanced Concussion Training (ACT) program to over 1,000 football coaches in the Los Angeles Unified School District, 2,500 coaches in The Chicagoland Youth Football League, and over 3,000 Chicago Public Schools coaches and athletic directors, as well as programs for parents and athletes.

The Boulder, CO resident has also worked for the betterment of the Green Industry overall by promoting environmental stewardship. In October 2011, Brock became the first company in the synthetic turf sector to have a Cradle to Cradle Certification CM for its combined drainage and shock pad product. Recognized as the most comprehensive, rigorous environmental certification process, the designation is administered by the Cradle to Cradle Products Innovation Institute, which evaluates products and materials for their impact on human health and environmental health and design for future life cycles.

Late last year the Cradle to Cradle certification was awarded to Brock’s PlayBase playground and PaverBase patio underlayment technologies, which is used by landscape professionals and homeowners with do-it-yourself savvy. Offering the only product in the market that can be closed loop recycled, the company’s technologies reduce the overall energy cost of constructing a field by 50%. Made in an ISO and TS certified manufacturing facility of 100% recyclable and non-toxic material, Brock PowerBase, PlayBase and PaverBase is certified to the world’s most stringent environmental standards.
Green Media: You were nominated by your peers as one of the most influential people in the green industry. How do you feel that you influence other industry professionals?

Sawyer: First of all, our green initiatives and culture are a team effort. So this nomination really goes to everyone at Brock. But I do think an environmentally sustainable approach to doing business is appropriate, and frankly necessary, for any business to be competitive. I’m really honored to see that people in our industry are receptive.

Green Media: What do you feel has been your biggest contribution to the green industry so far? And what do you see as your role in the future of the industry?

Sawyer: I think when we went through a complete redesign of our core product line with the achievement of Cradle-to-Cradle certification; we showed people that it can be done even in a product that was originally developed for safety. Not only that, but the product got better as a result of the process. Today, environmental impact has become a key subject that must be addressed in any project.

I think Brock must continue to educate people that the process of preventing brain injury starts at the playing surface level, and we have to take an active role in educating others about brain injury prevention programs. At the same time, working with clients who set an example by choosing an environmental path to both product selection and construction technique will raise the bar for the industry.

Green Media: Who has influenced you both personally and professionally?

Sawyer: Steve Jobs, without a doubt. His creativity and vision to challenge the status quo, and his belief that, “people don’t necessarily know what they want, or what is possible. You have to show them.” It’s up to innovators to guide the way, and his trials and perseverance throughout his life and his companies has been a guiding light. Others such as Simon Sinek with his philosophy of “people don’t buy what you do, they buy why you do it.” I think people respond to our company because they know we have a larger view than just selling a product. We exist as a company to evolve the industry on multiple levels and being an environmental leader is one reason for people to do business with us.

Green Media: Tell us something about yourself outside of work (hobby, sport or other personal interest) that influences your approach in your professional career.

Sawyer: I have always been a person who is a natural “rule challenger.” I think we as a society can always operate better and more efficiently, and achieve more, if we challenge the current paradigm. I try to teach my children to think beyond what’s in front of them, and ask, “Is there a better way?” I do this a lot in airport security!

In sports, I always push myself to levels beyond what I think I am capable of and there is risk in that. But I find my personal and professional work is the most gratifying.
when I achieve something that at the outset seemed overwhelming. When we got into this business, most people thought we were crazy. Here we were, a little company from Boulder getting into an established, conservative market and proposing a new way of doing things. A challenge like that is where I am most comfortable, and I think it brings out the best in us.

Green Media: What dreams do you have for the industry? What change(s) are necessary to make those dreams a reality?

Sawyer: I truly believe that we can use technology to go beyond what even natural turf can do. Just as there have been developments in footwear and helmets, I think the surface can ultimately become one of the key technological components in the sports program to help prevent brain injuries while maximizing sports performance. There are a couple of hurdles to overcome. One is the idea that the cheapest alternative is the best use of public funds. Too often price is placed before quality, but we know that a life-cycle costing approach to the field system today pays off in spades in the long run.

I think the only way to become a leader is to practice what you preach...

The other hurdle is we have to make people understand that laying carpet over stone is not the best we can do, and when it comes to safety, we have to do our best. But things are changing due to the attention now being given to head and body injuries through groups like the Sports Legacy Institute, and how the surface can significantly reduce those risks.

Green Media: What advice do you have for green industry professionals who want to become influential leaders themselves?

Sawyer: I think the only way to become a leader is to practice what you preach. You have to create a culture within your organization that embraces environmental choices, whether it's in R&D, how you use transportation, or the demands you put on production. It is typically more expensive to run a business this way, so you have to create value in what you are selling. But in the end, it is the right thing to do, and if Brock is any example, people will respond positively to those efforts.

Green Media: If you could nominate another person as the green industry's most influential person, who would that be, and why?

Sawyer: I think Professor Michael Braungart, the co-author of Cradle to Cradle, was a true visionary when he realized back in the 1990s that we were going to have to fundamentally change the way we use resources and how we develop products. Today, many companies and even governments have embraced his ideals, even though some are not yet technologically achievable. But he set the bar so high he has given us all something to strive for. And I love his optimistic outlook on the use of materials technology to attain greater levels of sustainability.
Inverted aerosol cans emit potentially harmful propellants and typically end up in a landfill after use. A football field (with numbers) requires close to 40 cans. A full-size soccer or lacrosse field uses 12 cans. On average, a typical high-school could use more than 1,000 cans per year. At an average cost of $4 per can, it’s a hefty burden on your budget and the environment.

Bulk latex paint use on sports fields has been growing at a substantial rate over the past 10 years. This has primarily been driven by advancements in paint quality, the introduction of professional field marking equipment, and the significant savings in time and cost (up to 75% less) compared to aerosol spray cans.

Maximizing both the environmental and cost savings of using bulk latex paint depends on the field marking machine used. Most field marking machines use low pressure (50-100 psi) pumps and low end spray tips that essentially dump paint onto the ground. Graco changed the game in 2004 with the introduction of the FieldLazer S100. This was the industry’s first high-pressure (900 psi) sports field marking machine which is now the brand professional groundskeepers’ trust. The combination of Graco’s high-pressure technology and precision spray tips provide a fine spray pattern that coats the entire grass blade, not dumping onto the soil. This results in professional, brighter, longer-lasting lines with ½ the paint vs. low pressure machines.

Graco has changed the game again with its new for 2013 Graco FieldLazer S90, the industry’s first battery-powered high-pressure airless sports field stiper. Battery-powered reduces dependency on petroleum, does not use propellants, and is energy efficient and easy to use.

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*There must already be a national sports turf manager from your facility or commercial member from your company before you may sign up in the Associate category.

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**STMA in action**

**KAFMO’s involvement with Little League**

**OVER THE PAST 15 YEARS** the Pennsylvania Chapter of STMA, officially the Keystone Athletic Field Managers Organization (KAFMO), comes together at the end of summer as millions from around the world turn their eyes to South Williamsport, PA. Kids from all over the world play the game of baseball in hopes of playing in the Little League World Series. Sixteen teams of players 11 and 12 years old descend on the Little League complex in Lycoming County, PA in hopes of being crowned the only true sports “World” Champion.

The Little League World Series has become a grand event. Television coverage of every game played during the series on the ABC/ESPN family of networks has turned up the exposure that the event has seen. In 2012 the television ratings were high with millions watching and attending. It is estimated that the event injects $20 million dollars into the economy of Lycoming County.

With the players, coaches, managers and umpires on the field, announcers, scorekeepers, security, ushers, cameramen and television production crews in place everything is set to “Play Ball!” But wait, what about the field, is it ready? Is it safe for play? Will it look good on television? That portion of the series is left to members of KAFMO.

“The chapter has been honored to assist Little League Baseball with field preparation for 15 years,” says Jeffrey T. Fowler, Penn State Cooperative Extension Turfgrass educator and Board member for the KAFMO chapter (and national STMA). “We arrive before the series begins, we level the playing surface, edge the fields, resod any areas that are worn from summer play, all in preparation for the games that will be played and televised during the 10 days of the series.

“Number one goal is providing a safe playing surface for the kids to play on,” says Fowler. Fowler is quick to credit Seth Whitehill, groundskeeper at the complex, for his hard work and dedication throughout the year. “Seth does a great job year round preparing the fields for the Series; he applies fertilizer, sprays and mows throughout the year when there are no television cameras around to see everything that is going on.” Seth graduated from Penn State in 2008 with his bachelor’s degree in Turfgrass Science.

“We have approximately 40 volunteers that are a part of the grounds crew. These volunteers are members of STMA or one of its chapters. People take vacation time from their own work schedules and leave family at home to come to the series to assist with field preparations. Some stay for the entire time (2 weeks), others help out for a few days,” Fowler says. “The crew that we assemble for the Little League World Series is second to none; not only do they have the fields at the forefront of their minds, but their professionalism is [supreme]. Having people realize that there is more to having a safe field than putting down lines and mowing grass is also a goal of our group.

“Every night we remove the lines, groom and water the infield, broom the edges of the grass, repair clay in the home plate circle and on the pitcher’s mound, and we tarp those areas as well; we groom the warning track and have the field ready for the next day.”

Thirty four televised games in 10 days take their toll of the fields in South Williamsport in mid-August. Yet every year the grounds crew manages to battle through whatever is thrown their way to pull off one of the greatest youth sporting events in the world. The grounds crew is proud of what they are able to help out with during the series. Many of the crew members have been attending for 15 years or more. Some have been bring their own children with them to help out. According to Fowler, “That is the next generation of sports turf managers; I tell kids all the time, the fastest way to the major leagues is with a rake in your hand.”

**STMA recognizes and thanks its 25 & 30 year members**

**STMA salutes its long-time members** for their dedication and commitment to the association and the profession of sports turf management. They have supported STMA through the years in many ways beyond paying annual membership dues. These highly involved members have attended and presented at our conferences, participated in leadership roles in the association, and served as volunteers on committees and in their individual chapters. Their efforts have guided STMA to being a strong and vibrant association of professionals. Thank you!

**Celebrated 30 YEARS in 2012**

Harold Howard, Ph.D.  
Turfscience, Inc.  
Phoenix, AZ

Paul C. Zwaska  
Technical Sales Support  
Beacon Athletics  
Middleton, WI

John A. Fik, CSFM  
Grounds & Sports Field Consultant  
Sodexo Education Services  
Vermontville, NY

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Mark Hodnick  
(Retired) City of Indio  
Beaumont, CA

James R. Watson  
(Retired) VP Agronomist  
The Toro Company  
Littleton, CO

Brian Petonic  
Turfgrass Supervisor  
M-NCPPC Maintenance & Development  
Upper Marlboro, MD

**Celebrated 25 YEARS in 2012**

Rich Ericsson  
Head Groundskeeper  
Three Village Central School District  
E Setauket, NY

Ken Mrock  
Head Groundskeeper  
Chicago Bears Football Club  
Lake Forest, IL

Frank T. Bowyer  
Manager of Grounds  
Amphitheater Public Schools  
Tucson, AZ

Marc Van Landuyt  
President  
Van’s Enterprises, Ltd.  
Waukegan, IL

**Celebrating 25 YEARS in 2013**

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Retired Professor/Turfgrass Management  
University of Georgia - Griffin Campus  
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Arthur Clesen, Inc.  
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Athletic Turf Division Manager  
S & S Tree & Horticultural Specialists  
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**Jim Frelich**  
Turf Consultant  
J R Frelich & Associates, LLC  
Salem, OR 97305

**Timothy M. Burke**  
Park Superintendent  
Town of Westport  
Westport, CT

**Stephen E. Horne**  
Director of Field Operations  
Scranton Wilkes-Barre Yankees  
Moosic, PA

**Leo A. Goertz**  
Athletic Fields Maintenance Manager  
Texas A&M University College Station, TX

**David D. Minner, Ph.D.**  
Professor  
Iowa State University  
Ames, IA
Committee Corner

STMA has 23 Committees and will be recognizing the work of two committees each month in the magazine. Last month featured the Conference Education and Environmental Committees. The International and Awards Committees are featured this month.

STMA International Committee
This Committee began as a Task Group in 2010 and became a full committee one year later. Its primary purpose is to position STMA as a global leader in sports facility management and as the go-to resource for those who work internationally in the industry. One way it gains recognition is by sharing association and technical information with those in the sports turf profession in other countries. The committee has reached out to international sports organizations to introduce STMA. It has developed a network of contacts in academia and in the commercial sector who work internationally and who will promote the association when traveling abroad. Much of the efforts have been centered on developing appropriate technical resources, and trans-

STMA Affiliated Chapters Contact Information

Sports Turf Managers Association of Arizona: arizonastma@gmail.com
Florida #1 Chapter (South): 305-235-5101 (Bruce Bates) or Tom Curran @tomsell@aol.com
Florida #2 Chapter (North): 850-580-4026, John Mascaro, john@turf-tec.com
Florida #3 Chapter (Central): 407-518-2347, Scott Grace, scott@sundome.org
Indiana - FORMING - Contact Clayton Dame, claytondame@hotmail.com or Brian Bornino, bornino@purdue.edu

Minnesota Park and Sports Turf Managers Association: www.mpstma.org
Nebraska Sports Turf Managers Association: sphillips4@unlnotes.unl.edu
Oklahoma Chapter STMA: 405-744-5729; Contact: Dr. Justin Moss okstma@gmail.com
Oregon STMA Chapter: www.oregonsportsturfmanagers.org oregonstma@gmail.com
South Carolina Chapter of STMA: www.scstma.org.

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Marketplace

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C ☐ GOVERNMENT OFFICIAL — Government Commissioner, Agent, Other Government Official
D ☐ SPECIALIST — Architect, Designer, Consultant, Agronomist, Horticulturist, Certified Specialist
F ☐ COACH  E ☐ Other (please specify).

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E ☐ $25,000 - $50,000
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D ☐ SPECIALIST — Architect, Designer, Consultant, Agronomist, Horticulturist, Certified Specialist
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G ☐ $500,000 - $1 million
E ☐ $25,000 - $50,000
D ☐ $500,000 - $25,000,000
C ☐ $50,000 - $100,000
B ☐ $25,000 - $50,000
A ☐ $25,000 and under

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Season or Rookie. The Innovative Awards program is for commercial exhibitors, and there is not a set number of awards given each year. Last year the Committee re-developed the Field of the Year program to an entirely online process for submittals and judging, and this year it further refined that process. The members of this committee spend a minimum of 15 hours reviewing applications over a 3-week period. The committee is currently discussing the creation of a new “Volunteer of the Year” award.

Committee Members: Chair - Allen Johnson, CSFM; Patrick Coakley, CSFM; Brad Garrison; Stephen Horne; Joe Kovolyan, CSFM; Alec Kowalewski; Sarah Martin, CSFM; Ben Polimer; Mike Schiller, CSFM; George Trivett, CSFM and Charlie Vestal. Staff Liaison: Kim Heck ■

SportsTurf 49

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When a prank goes bad

Coach Beam and Principal Aaron Allen of Burns High School in Cleveland County, NC, called me in late October with this situation. The week before someone had released goats into Ron Green Stadium. Within this stadium is the school’s varsity football and soccer field. The prank came just a few weeks after nearly 100 people were sickened by E. coli (one 2-year-old died from the illness) at their county fair, believed to be caused by contact with animals in the petting zoo. The state Division of Public Health was consulted and made the recommendation to the Cleveland County Health Department that the athletic field be “off limits” for use for 6 months. The school’s question was, “is there anything we can do to get the field opened earlier?”

This story was picked up by ABC News, putting it in a national spotlight. So, many of you may have first heard about this issue like I did, while watching the nightly news. When I first heard the story, I dismissed it as a prank. I figured a combination of science and common sense would prevail and the field would be re-opened in short order. After all, the goats used in the prank are owned by the school. They are used in their agriculture instruction programs and normally kept in an area adjacent to the stadium. So, why the big fuss, right?

A couple of days after hearing about it on the news, I got the call from Coach Beam. It was then that I realized I had underestimated the seriousness as a potential medical issue and the travesty for the athletics and school supporters from the social and political fallout that followed the prank. Before offering any help, I needed to learn more about E. coli. I had studied E. coli bacteria when I took microbiology in college many years ago but years had eroded my memory of the subject. I should note that the coach and principal wanted to have the field opened sooner than 6 months, but they also wanted assurance that the field was safe when it was opened.

E. coli, short for Escherichia coli are bacteria commonly found in the intestine of warm-blooded animals. Most strains are harmless, but some can cause serious food poisoning in humans. Sickness due to E. coli is most often associated with fecal contamination. The most virulent strains, such as strain O157:H7, can cause serious illness or even death to those with weaker immune systems. From what I learned, a healthy high school athlete would generally not be considered “at risk” for significant sickness from exposure to the bacteria.

Their findings indicated that E. coli O157 could persist on some plant roots up to 96 days.

During my research, I talked with colleagues and a representative with the state health department. No one I spoke with, including the scientist with the state health department that recommended the 6-month closure, had any idea how long E. coli could remain viable in a natural grass athletic field. The representative indicated that some studies and a literature review following a petting zoo incidence at a past NC state fair suggested the bacteria could live about 5 months after animals are removed from the holding pens. So the rationale in this case was to use this knowledge as a worst-case scenario and then apply it to the closing of the athletic field for a 6-month period. The extra month was for added safety.

I did some of my own searching in microbiology journals for evidence that it may not last as long in a turf environment. There seems to be very little research this specific, but I did find two pertinent references. One study reported that when fecal material infected with a general E. coli and E. coli O157 (one of the bad ones) was applied to grass plots that O157 could only be detected on the grass for the first week after application. The general E. coli numbers steadily declined to less than 1 percent of those applied by day 29. It also reported that heavy rainfall reduces E. coli. The other study was less specific and just evaluated infected soil and plant roots. Their findings indicated that E. coli O157 could persist on some plant roots up to 96 days. So even in these worst case scenarios, the E. coli was gone from the grass within a month and may be detectible in a soil out to about 3 months. That would cut the suspension of field use by half.

I sent these references to the State Department of Health and they indicated they would review these findings as well as other information they had solicited from their colleagues in other states. I am no microbiologist, so I cannot definitively say that the two Health Departments overreacted or not. There seems little doubt that their decisions were influenced by previous cases (and litigation) involving sickness from petting zoos. But was the worst-case scenario reaction to close the field for 6 months reasonable? So far this remains an unanswered question, since there has been no change in the closure. Last I heard the field will be re-opened for use April 19.