break through the sod layer after three or four games. At that point we will dig out the sod and some sand and pack in mound clay. We treat this area the same as we do a baseball or softball home plate area in order to make sure all the balls have true hops. We repair the holes dug from the goalie after every game. The faceoff area in the center of the field we try to move up and down the midfield line to spread out the wear.

From what I can gather, the only grass fields in D1 lacrosse are at Virginia, Maryland, North Carolina, Duke, Rutgers, Penn State, Ohio State, Fairfield, Brown, and VMI.

#### **MEN'S FIELD DIMENSIONS**

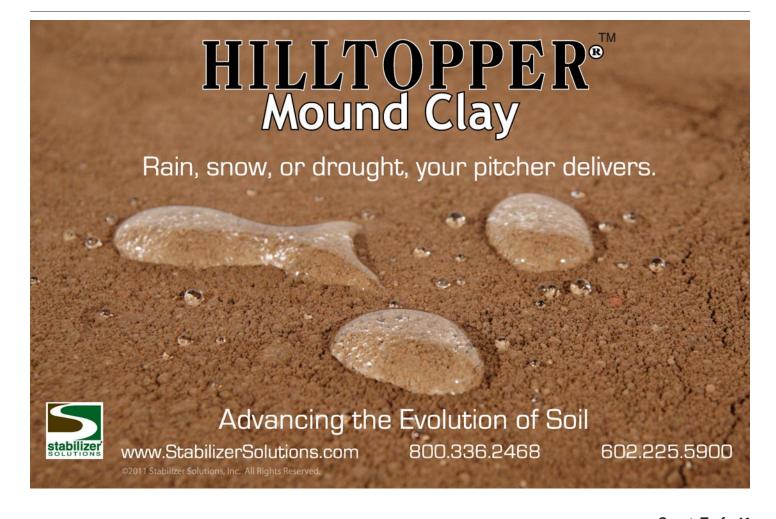
A lacrosse field is 110 yards long and can be from 53 1/3 to 60 yards wide. The goals are 80 yards apart with a playing area of 15 yards behind each goal. The length of the field is divided in half by a center line. An 18 ft. diameter circle is drawn around each goal and is known as the crease. A rectan-



>> Klockner Stadium is a sand-based, Patriot bermudagrass field and home to the University of Virginia soccer and lacrosse teams. Photo by Jesse Pritchard, CSFM.

gle, 35 yards by 40 yards surrounds each goal area and is known as the goal area. An "X" is marked in the center of the field. There is a special substitution area on the sideline, next to the timers table. Access field diagrams below for a clearer picture. The goal is 2 vertical posts 6 feet apart, joined by a top crossbar which is 6 feet from the ground (a 6'x6' goal). A line is

drawn on the ground between the posts in order to indicate the plane of the goal. This line becomes known as the goal line. Attached to the goal is cord netting, which is fastened to the ground 7 feet behind the center of the goal. The boundaries are determined by the natural restrictions of the field. An area of 120 yards by 70 yards is desirable.



www.stma.org SportsTurf 41

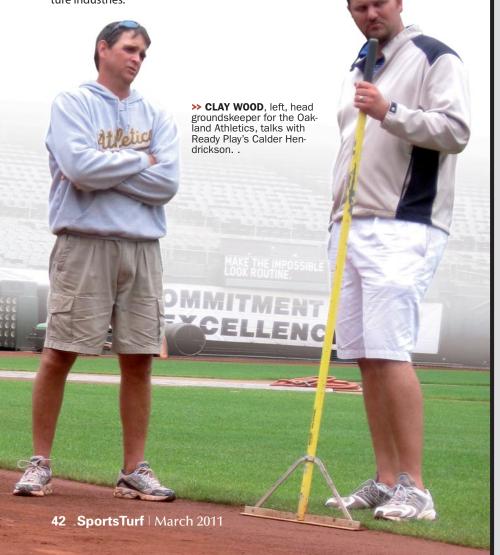
# New infield skin products help manage moisture

ALDER HENDRICKSON exhibited at this year's Sports Turf Managers Association Conference for the first time with his new company, Ready Play Sports (www.readyplaysports.com). His product caught our eye because several MLB groundskeepers had signed on to endorse the product. Recently we exchanged emails with Calder on how his company got started and what products they are offering. Here is his response:

Ready Play conceptually began in May 2010 when I became close friends with the inventor of the technology, a 74-year old gentleman from Lubbock, TX who prefers to remain anonymous. He believes water will be in greater demand than oil in the near future, and he showed me the technology he created that vastly increased the amount of time soil retained moisture. His original purpose was to reduce the water needs in the agriculture and horticulture industries.

I was amazed to find that this granule product was capable of absorbing 8-15 times its weight in water. I knew right away there were endless applications for the technology in sports, especially baseball. Having played baseball through college, I was all too familiar with the moisture issues plaguing playing surfaces. I tested this technology against calcined clays and found that 25 pounds of Ready Play Surface Dry was equivalent to roughly 200 pounds of some calcined clay products on the market. A residual benefit was this product did not need to be removed from the field; the absorbing properties are ready to take on the next rain event.

So I took the product to local coaches and municipalities. In just a few weeks, I had a small client



## MLB groundskeepers are believers

#### **CLAY WOOD, Oakland A's**

"Being in the groundskeeping industry for 21 years I have seen numerous products come and go. In my opinion, until I saw Ready Play, I had never seen anything truly cutting edge that could change the way infield dirt holds moisture.

"There are a lot of different ways to change the profile or make up of an infield mix and you have always been able to tighten or loosen a mix with clay or sand, but never effectively change the way an infield holds moisture for an extended period of time.

"When I saw Ready Play, its moisture retention capabilities, the simplicity of incorporating Field Magic into existing infield mixes, and the way it becomes part of the dirt; I knew I wanted to be involved with the company and their product development group.

"I honestly believe Ready Play has the potential to improve the quality of any natural dirt infield/warning track surface in the world and could revolutionize the way infield dirt is maintained, saving an immense amount of water in the process.

"For me, I think Field Magic will retain more moisture closer to the surface, for a longer period of time, only enhancing my use of traditional calcined clay infield conditioners. This will allow the calcined clay to work more effectively giving our players a more consistent surface into the later innings."

#### **DAN CUNNINGHAM, New York Yankees**

"I got involved with Ready Play because I've been dealing with different ratios of clays, silts, and sands for years. I honestly believe it's going to take a synthetic product like Ready Play's technology to take our industry to the next level."

#### **MARK RAZUM, Colorado Rockies**

"Being responsible for the playability and safety of a baseball field, [I believe] Ready Play gives me another tool that I can utilize to get the best performance from my infield. The uniqueness of this product allows me to incorporate it into the infield profile at a regulated rate, due to the technology's ability to attach to a sand particle.

"The biggest challenge for a groundskeeper is being able to retain moisture within the infield profile throughout the course of a game or practice, and Ready Play allows me to hold that much needed moisture for a longer period of time. Also, its unique ability to retain and absorb that moisture allows me to take away some of the surface moisture during a rain situation. I feel very fortunate to be asked to consult with Ready Play. I have never seen a product like this that has so much potential in being a positive contribution in athletic field maintenance."

As a company we are focused on moisture management. If you have too much, we can reduce it, if you don't have enough, we can help you hold onto moré. The goal of our products is to intensify the effects of calcined clays, vitrified clays, etc.; we just want to make them better.

base in West Texas. At that time, we were developing another product called Ready Play Dry Mats to remove standing water from skinned areas, or even turf. These Dry Mats are infused with our patented technology and absorb 2 gallons of standing water off any surface. The reusable Dry Mats immediately drew the interest of multiple industries. I knew I had something pretty cool when a friend's basement flooded, and we used our Dry Mats to help clean it up.

While creating the "drying" agents, we altered the technology a little bit, and created a third product, Field Magic, a complement to the Surface Dry product. Where the latter takes your field from soaked and muddy to playable, the former keeps your field from becoming dry and dusty. Field Magic is incorporated into the existing soil, and holds moisture in the soil profile for an extended period of

This all transpired in only 3 months! I took the products to two friends, Andy Larned and Todd Naff, both of whom had played professional baseball. They agreed we had to get these products in front of an industry expert. The three of us knew what a baseball field was supposed to feel like, but we had no idea how to create that feel.

Clay Wood, head groundskeeper of the Oakland A's, and I both grew up in Boulder, CO and he was a good friend of my cousin. So Andy and I arranged to meet with Clay in late October, in Oakland, and he was intrigued with what the products could do. He called Mark Razum, head groundskeeper for the Colorado Rockies, and they agreed the best way to evaluate their performance was to incorporate some product into one of the spring training fields at Papago Park in Phoenix. After we incorporated Field Magic into the playing surface, Razum put out the equivalent of a 2-inch



>> CHAD HUSS, the Oakland A's spring training groundskeeper, put Ready Play technology on top of overseeding on a field in Phoenix, which is shown on the right side of this photo, taken 11 days after the overseeding. He said he was able to get a stronger, denser grass with less water on the treated area.

rain on the field. Someone said that there was no way we would get on the field for at least a day. We went to lunch, and upon our return the field was ready for play. At that point, Clay and Mark became believers in this technology.

As a company we are focused on moisture management. If you have too much, we can reduce it, if you don't have enough, we can help

you hold onto more. The goal of our products is to intensify the effects of calcined clays, vitrified clays, etc.; we just want to make them better.

Our products are available nationally through Ewing Irrigation, BWI, Hisco Companies, Fairmount Minerals, Pro Chem Sales, G & S Solutions, Cisco Companies, Trupoint, and Gail Materials.



www.stma.org



#### Tools&Equipment | Products

#### Toro Reelmaster 5210

The Toro Reelmaster 5210 features Dual Precision Adjustment cutting units to deliver an exceptional quality of cut and aftercut appearance. Powered by a 28-hp, 3-cylinder Kubota diesel engine, this unit offers a nimble and maneuverable design for mowing in a wide range of conditions. The Reelmaster 5210 is lightweight and productive with a 100-inch width of cut. It is available in standard 2 wheel drive or add on the CrossTrax® all-wheel drive system.

www.toro.com

#### **ESP-LXD** two-wire decoder controller

The ESP-LXD Controller interfaces to a two-wire path for decoder-based irrigation. Easily expandable from 50-200 zones, the ESP-LXD offers flexible features and modular options that make it ideal for a wide variety of applications, including athletic complexes. The controller's two-wire functionality makes it simple to install and expand as a site grows. Simply branch off the two-wire feed, add and program decoders into the controller and let the system do the rest of the work. Extra Simple Programming allows water to be delivered based upon climate, plant needs and location.

www.rainbird.com/esp-lxd

#### Rollers and Locke reels from Stens

Stens' collection of Locke reels is manufactured from steel that is specially formed and rolled to fit the industry's specifications and standards. The outstanding strength of Locke reels is a result of steps in the manufacturing process, such as heat treatment, quenching, forging, and tempering. Independent tests have proven the reels' ability to withstand tensile strengths in excess of 120 tons PSI. Front and rear rollers in grooved and smooth styles are also available through Stens. With an ever expanding selection, Stens rollers are manufactured to OEM specifications and feature OEM quality standards. Stens offers rollers that fit John Deere, Toro and Jacobsen fairway and greens mower style cutting units.

www.stens.com

#### Tourney fungicide

Tourney fungicide provides turf professionals with a versatile and effective tool in the fight against tough diseases. Tough on a broad spectrum of diseases, including brown ring (Waitea) patch fairy ring, gray leaf spot, necrotic ring spot, summer patch, snow mold, take-all patch and others. Proven to provide control of the "Big 3" turf diseases: anthracnose, brown patch and dollar spot. Effective in early season, spring and fall, providing flexibility and value for budget-conscious turf professionals. Applied at low use rates, meaning less stress on turf and less environmental load.

www.valent.com







Shokray Blu cleansing pellet

Kochek introduces the Shokray Blu pellet, a complete cleansing solution for artificial turf and more. An ionic action from the pellet forms a blanket of long-lasting protection and inhibits the growth of odor-causing bacteria and other microorganisms on the surface of your turf, stadium seats, and other public surfaces. Its penetrating action is enhanced by being suspended in our Big Water surfactant allowing you to achieve the deep cleansing penetration needed on most sports surfaces. An additional advantage of this pellet is its effectiveness as a stadium wash down agent cleansing your seating and other public areas around your facility. One pellet will dissolve in approximately 1000 gallons of water at 70 to 90 PSI. Once applied just simply rinse the area thoroughly.

www.kochek.com

#### **Hunter Industries' I-CORE controller**

The I-Core is Hunter's flagship controller for demanding applications. A big reason the I-Core is so unique is its sheer versatility. The plastic cabinet version is expandable from 6 to 30 stations, and the metal cabinet model can handle up to 42. Adding a DUAL 2-wire module can even expand station capability to 48. This provides a broad range of user choices. With built-in real-time flow monitoring, an easy-to-use interface, and other add-on options like a ROAM or ICR remote or the conservation-focused Solar-Sync, I-Core's possibilities are all but limitless. With so many new features, Hunter hopes this revolutionary controller will redefine irrigation intelligence.

www.hunterindustries.com



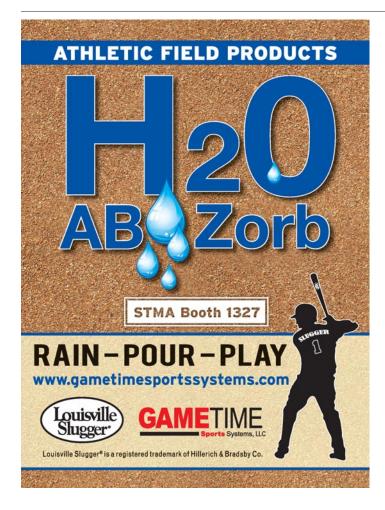
For 50 years, Turfco has led the way in topdressing technology. That legacy of innovation continues with the introduction of the industry's most advanced topdresser, the WideSpin™ 1540 TEC truck-mounted broadcast topdresser. Featuring on-board diagnostics, electronic controls, and WideSpin technology, the WideSpin 1540 TEC is designed for use with John Deere and Toro turf vehicles. A few simple mounting brackets and connections turn these trucks into a quality broadcast spreader. Simple, push-button controls on the electronic controller, combined with the unique spinner design allow operators to complete 90 percent of applications without complicated directions or mechanical adjustments. A 25 cubic-foot hopper keeps operators on the course while still keeping a light footprint on greens.

www.turfco.com











www.stma.org SportsTurf 45



#### New web-based technologies make product info more accessible

Agrium Advanced Technologies has expanded its web-based technology solutions by launching three new websites, www.agriumat.com, www.PolyonThinkGreen.com and the golf-specific www.SpreaditandForgetit.com, in addition to a new Nutri-Graph Blend Calculator. These new technology tools join Agrium Advanced Technologies' very popular and successful POLYGRAPH® POLYON® Performance Predictor, and are each specifically designed to make purchasing decisions easier for green industry professionals. Industry research shows that customers across each of the agricultural, horticultural, lawn care and golf markets continue to embrace new technology trends, and the evolution of these tools is part of Agrium Advanced Technologies' commitment to customer service, providing product information and purchasing data across a variety

www.agriumat.com

#### Calsense Resource Management System

The Calsense Resource Management System is easy-to-use computer technology for efficient use of water, labor and money. Each ET2000e irrigation controller is purchased with a built-in, radio remote receiver. Using the hand-held RRe-TRAN with display, station info. can be viewed and edited, ballpark lights turned ON/OFF, NO WATER days programmed, master valve overrides performed, and station flow rates and electrical current monitored in one's hand. The controller FLOWSENSE option offers software designed to manage the proper operation of valves so pump or system capacities are not exceeded, the water window is decreased and isolated lateral breaks detected. Calsense offers flexible forms of communication options for central control with powerful, software generated water and labor management reports for system performance.

www.calsense.com



#### New pre-emergent herbicide for warm-season turf

Specticle is a new pre-emergent herbicide from Bayer Environmental Science for warm-season turf that sets a new standard for control. Specticle provides residual control unlike any other products in the market. Three to four months of control can be achieved by using 40% less active ingredient than other pre-emergents. Specticle offers control of Poa annua, crabgrass, goosegrass and over 60 broadleaf weeds. Specticle is formulated as a 20% wettable powder that is packed in two sizes for ease of use.

www.backedbybayer.com



#### Renown fungicide receives registration for use on sports turf

Renown fungicide, a broad-spectrum product from Syngenta, has received EPA registration for use on professional turf sites. It is the only product to contain the active ingredients found in both Heritage and Daconil fungicides. By combining proprietary azoxystrobin from Syngenta and finely milled chlorothalonil, Renown provides both systemic and contact modes of action. Its preventive and curative properties help control key plant diseases including dollar spot, brown patch, gray leaf spot, algae, anthracnose and more. Renown is not currently registered for sale or use in all states. Please check with your state or local extension service before buying or using this product.

www.syngenta.com



#### **John Deere SL Walk Mowers**

John Deere's family of SL Walk Mowers features patented Speed Link™ height-of-cut adjustment technology. See the SL in action at http://bit.ly/f8YqIJ. Speed Link allows height-of-cut adjustments from one point without loosening or tightening hardware; the technology translates to a 70% reduction in the height adjustment steps, both in the shop and out. A patented front roller bracket allows crews to quickly change the roller type to cater to changing grounds conditions, providing a more versatile equipment solution. An optional gear driven rotary brush or greens tender conditioner rotates the opposite direction of travel to help stand up the grass before cutting. The new optional out-front push brush in front of the catcher helps stand up the grass while keeping the front-to-back roller distance close for ground following.

www.deere.com



#### Phoenix Environmental Care introduces new fungicide and PGR

Phoenix Environmental Care's newest fungicide, Pegasus 82.5 DF, contains the active ingredient Chlorothalonil, which allows the dry, flowable formulation to control a wide range of ornamental and turf diseases, including dollar spot, brown patch, grey leaf spot, anthracnose, dichondra leaf spot and fusarium. In addition to disease control, Pegasus 82.5 DF offers a more consistent particle size, which ensures very little fragmentation of the material and provides for fast dis-

Monarch plant growth regulator works to reduce the frequency of mowing and clippings while promoting turf root strength and lateral development. Containing the active ingredient Paclobutrazol (22.3 percent), Monarch slows vegetative growth by inhibiting gibberellins biosynthesis as it moves upward through the xylem of turfgrass.

www.PhoenixEnvCare.com



#### Toro Precision ET web service

Toro Precision ET is a web-based service for the Toro Sentinel Water Management System. It provides Evapo-Transpiration data with a resolution of one square kilometer for any latitude/longitude location in the continental US, Hawaii, and southern Canada. Free with every Sentinel software package, you get daily ET Data for a "weather location" without the hassles of maintaining a weather station. Your Sentinel computer automatically retrieves updated ET data from the Precision ET servers daily via the Internet at a user-designated time. Each Precision ET "weather location" set up in Sentinel can have from one to 999 controllers using the ET values for precision irrigation.

www.toro.com



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## Ask a CSFM

John Watt, CSFM, athletic field manager, **North Kansas City Schools** 

### Benefits of certification verified

Editor's note: This is another installments on how becoming a Certified Sports Field Manager (CSFM) can benefit turf managers professionally as well as improve their facilities



#### How did you prepare for the CSFM Exam?

Watt: My preparation for the exam started with looking at the resource list of materials on the STMA web page to see what information I felt I needed to review. There are more books on that list than I read through my college years. I did go through "Sports Fields: A Manual for Design Construction and Maintenance" and "The Mathematics of Turfgrass Maintenance." Also I used the practice exam to familiarize myself with the style of questions.

#### How did you approach your employer to support your certification, both financially and in the time needed to prepare for the exam?

Watt: Since I work for a School District, approaching my employer on education factors was an easy task. I explained the benefits of being a CSFM and what can be applied for the future of the athletic fields. Most of my time studying for the exam was on my own, but I took full advantage of gaining more workrelated experience.

#### Why did you decide to pursue certification?

Watt: I decided to become a CSFM when I realized that this type of work is my career, not just a job. This is a way to express my knowledge, experiences, and abilities to my employer and the industry.

#### How has certification helped your career?

Watt: Since becoming a CSFM I have made more business contacts, gained respect from coworkers, continued my role on the board for Mo-Kan STMA chapter, and become a committee member for STMA.

## Jacobsen celebrates 90th anniversary

FOUNDED BY DANISH IMMIGRANT KNUD JACOBSEN and his son, Oscar, in 1921, innovation began from day one when they introduced the Four Acre Mower so named because, powered by an internal combustion engine, it could mow four acres of lawn in a single day. It cost \$275, a relatively large sum at the time, indicating the size and complexity of the machine. It was designed specifically for use in parks, cemeteries, playgrounds, golf courses and large estates with 75 built in that first year.

In 1923, Jacobsen again made history with the introduction of the first cast aluminum greens mower; this was able to cut fine turf and bent-grass greens without damaging the meticulously-conditioned surfaces.

Mower production gave way to manufacturing equipment for military use in World War II. Deserving a special mention was the small, 22-pound backpack generator set for use by paratroopers in radio transmission. The company subsequently received Army and Navy "E" awards for meritorious service in wartime production.

In 1955 Jacobsen mowers maintained the grounds at the 1958 Brussels World's Fair and in 1962, the Chief, all-purpose compact tractor was introduced.

The late 1960s and early 1970s saw Jacobsen really establish its golf credentials with the introduction in 1968 of the first riding greens mower, the Greens King, which quickly became the standard for the turf maintenance industry. Launched in 1971, the F-20 was the world's largest golf course mower, a 78-horsepower tractor pulling nine cutting reels, cutting a 19.7 foot swath and capable of mowing 12.35 acres per hour.

The MAGSystem was introduced in 2004. This breakthrough technology used magnets to secure bedknives in position, saving technicians time and improving the quality of cut.

1986 witnessed the development and introduction of the Turf Groomer, one of the most significant advances in greens maintenance. Invented by superintendent Larry Lloyd it allowed green speed to be increased without lowering the height of cut.

Another industry first came in 1989 with the introduction of the lightweight 5-gang LF-100 mower, specifically designed from the ground up to be as light as possible, providing less compaction and healthier turf.

The company expanded dramatically in 1998 with the acquisition of Ransomes, a British firm with a 200-year history manufacturing agriculture and turf maintenance tractors, mowers and accessories. This brought many new products and brands to the Jacobsen name, including Cushman trucks and Ryan aerators.

The MAGSystem was introduced in 2004. This breakthrough technology used magnets to secure bedknives in position, saving technicians time and improving the quality of cut.

In 2007, the world's first hybrid walking greens mower, the Jacobsen Eclipse 100 series was launched. This used a small petrol engine linked to a generator to provide electric drive for traction and mow-

This was followed in 2010 by the larger riding version, the Eclipse 322, a hybrid mower, which dispenses with the need for a hydraulic system to power the traction, reel lift and spin the reels.

## **Membership Application**



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"I know I am a better sports turf manager because of this association. As sports turf managers, we take the challenge seriously to make our fields the best possible for the next game. The resources I have access to through STMA helps me do it."

Bob Campbell, CSFM
 Higher Education
 Membership Segment

Name	Tit	le	
Employer/ Facility			-
☐ Business	□ Home		
Address			
City	St	ate Zip	
Home phone	Work phone		Cell phone
Fax	Email		
Signature			
Direct Supervisor Name			
Membership Categ	ory:		
☐ Sports Turf Manager	15		\$110
☐ Sports Turf Manager Associate* (Additional member(s) from the same facility)			\$75
Please select the primary	facility type where you are employed	<b>1</b> :	
O Professional Sports	O Higher Education O Schools K	-12 O Parks and Recreat	ion
□ Academic			\$95
☐ Student (verification of enrollment)			\$25
□ Commercial			\$295
☐ Commercial Associate* (Additional member(s) from the same commercial company) \$75			y) \$75
☐ Affiliate (Person who is	indirectly or on a part-time basis, in	volved in the	
maintenance/management of sports fields)		\$50	
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Signature:			

\*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.

Phone: 800-323-3875 www.STMA.org



# Sowell & Crew win one for The Natural State

#### TURF AND GROUNDS MANAGER MONTY

**SOWELL,** who also serves as manager of ballpark operations, led his team to a win of the 2010 STMA Professional Baseball Field of the Year Award. Arvest Park in Springdale, AR is home to the Northwest Arkansas Naturals, Double A affiliate of the Kansas City Royals. The park was built in 2008 and hosts the usual variety of events beyond baseball, more than 200 hours worth in 2010.

Featuring Patriot bermudagrass on a soil composition of 90% sand, 10% Dakota peat, the field has a GraviTURF drainage system, which is perforated pipe system developed by Dan Almond of Millennium Sports Technologies. Sowell overseeds in the fall with Champion GQ ryegrass at 18 lbs./1,000 sq. ft., and supplements that in the spring if necessary.

Sowell reports in his award entry:

"Our facility was built on the outskirts of Springdale in a yet-tobe developed area so we are surrounded by cow pastures and hay fields. With nothing to block the wind, and the way it swirls around the stadium, we are in constant battle against weeds, though with careful herbicide applications and my assistants' identifying and eradicating, we maintain surprisingly weed-free surface.

"Another challenge is our 'million dollar' surface, which relates to one of the greatest pre-construction debates of our time. The field was spec'd for Patriot bermudagrass grown in 90% sand; the problem was at that time, the only Patriot being grown in 90% sand was in Maryland! After much debate and exploring of options, we ended up with refrigerated trucks hauling our turf from Maryland.

"Obviously without means to haul half pallets of sod from Maryland over time, and having no sod farm at our park, we now buy grass grown on sand loam in Oklahoma and maintain it in our bullpens at the same time we service the fields. This allows us the opportunity to transition the new sod to our conditions. We designed the bullpens